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JANUARY 2006

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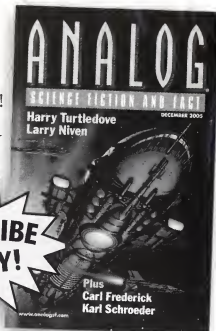
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SCIENCE FICTION

JANUARY 2006

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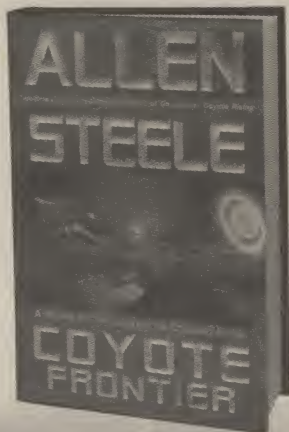


Two-time Hugo Award-winning author of Coyote

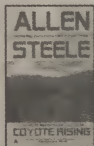
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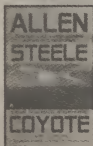
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INTERACTION

Returning to Great Britain for a Worldcon is always a treat for me. Ever since my teens, I've had enchanting experiences in the British Isles and Ireland. I've encountered megalithic mysteries from Stonehenge on the Salisbury Plain to the five-thousand-year-old burial grounds of New Grange in Ireland. I've hiked through Wordsworth's daffodils and Beatrix Potter's farmland with that most magical of authors—Carol Emshwiller—and watched my children board the Hogwart's Express.*

Returning to a Worldcon in Glasgow, Scotland, is also fun. I first visited the city fourteen years ago. At the time, I had no idea that I would be coming back. My husband and I had just completed our hiking trip with Carol in England's Lake District and were headed north for the remainder of our vacation. Coincidentally, Carol was going the same way. We all ended up at Glasgow's Central Hotel. Located at the Central Train Station, it was the original destination of wealthy visitors to Glasgow during the Industrial Revolution. In 1991, one could still imagine the Victorian hotel's grand past. At that time, Glasgow was being transformed from the grim city that guidebooks once cautioned tourists to skip, to the delightful city that it is today.

On our first night in the city, Carol called our room and told us to look out the window. A huge full moon rose just over the horizon. A

brehtaking sight, it must have been a product of the "summer moon illusion." Although NASA says my perception of an enormous moon is just a trick of the eye, my memory of that moon remains an astonishing one.

In 1995, I returned to Glasgow for my first Scottish World Science Fiction convention, and this summer I came back for my second. Memories of enormous moons remind me of the moon in the movie *AI*, and one of the highlights of this year's convention was visiting with the always charming, Brian W. Aldiss. Brian lives in Oxford, England, and is the author of the story that *A.I.* was based on—"Super Toys Last All Summer Long." He was just about to celebrate his eightieth birthday, and was as effervescent as ever. As usual, the time with Brian didn't last long enough, but I will most likely see him again in March at the Conference of the Fantastic in Florida, where he is the Permanent Special Guest.

I hadn't seen Ian Watson since my last trip to Glasgow. Ian can talk faster than just about anyone, and he can say more interesting things in five minutes than I can manage in a day. He has screen credit for the screen story for *AI*. It was great to listen to him once again, and I hope to see more work from him soon.

I spent a good deal of time catching up with other UK contributors like Liz Williams, Charlie Stross, Karen Traviss, and Chris Beckett.

*More properly known as The Jacobite Steam Train. Some of the scenery on its route from Fort William to Malliag was featured in the Harry Potter movies.

I was pleased that my path crossed with the Stephen Baxter and with Paul J. McAuley, too. Later that weekend, Paul, along with Kim Newman, was responsible for the shortest Hugo Awards Presentation Ceremony on record. With its *hommage* to Victor Hugo—the founder of modern SF in some alternate universe—the presentation was also one of the funniest. I visited with Ian R. MacLeod, and many other British writers, along with American, Australian, Canadian, and European authors, too. Interaction, as the convention was called, was truly an international world con.

I was disappointed, though, because I didn't have the chance to meet all of my favorite British writers. Somehow, I was simply never in the same place as Ian McDonald, the author of the marvelous tale of "The Little Goddess" in our June 2005 issue. Some British authors, such as Neal Asher and Ian Creasey (a new writer whose first story for *Asimov's*—"The Hastillan Weed"—will be appearing in our next issue) weren't at the convention.

Still, between the panel discussions and the parties, there was barely enough time to spend with the authors that I did see. In my opinion, some of the best parties included the *Asimov's*/*Analog* party in the Science Fiction and Fantasy Writers of America suite (I'm not biased), which showcased glorious cakes sporting the magazines'

covers and procured at great effort by the lovely Elizabeth Kerne, and the splendid party on the pirate ship that was thrown by Harper-Collins/Voyager, and where I had a wonderful time talking to George R.R. Martin, Kim Stanley Robinson, Connie Willis, and Jane Yolen, to name-drop but a few.

At Interaction, it was also my pleasure to speak to Michael Whelan. Michael is an immensely talented artist who has been awarded a multitude of Hugos for his work. One of his beautiful pieces can be found on the cover of this issue.

In addition to long-time contributors like David Marusek, Brenda Cooper, and Jim Grimsley, it was also fun to talk to some up-and-coming authors like Benjamin Rosenbaum, Christopher Rowe, Chris Robertson, David Moles, Ted Kosmatka, and the most recent Hugo-award-winner, Kelly Link. I look forward to opportunities to showcase their fiction in the future.

And now I'm back in New York City, digging myself out from under the huge load of work that accumulated during my absence. My friend Carol Emshwiller was not in Glasgow this time, and although she lives much of the year in New York City, I rarely ever get the chance to see her. I've been reading her science fiction for thirty years, and I'm pleased that *Asimov's* is starting 2006 off right. As you peruse this issue, you'll find her first story for us on p. 46. Enjoy! ○

We welcome your letters. Send them to ***Asimov's Science Fiction***, 475 Park Avenue South, Floor 11, New York, NY 10016-6901, or e-mail to asimovs@delmagazines.com. Include your mailing address, even if you use email. If you don't want your address printed, put it only in the heading of your letter; if you want it in print, put your address under your signature. We reserve the right to shorten and copy-edit letters. This email address is for editorial correspondence *only*.

LEVITATING YOUR DINNER

He's a chef who has his customers eating sushi made out of paper. (He prepares them on a Canon inkjet printer.) They're supposed to eat the menu, too. He's working on producing food that levitates. He's thinking of ways to grow food on Pluto.

No, he isn't a character in the new Charles Stross novel. He's real, he's twenty-nine years old, his name is Homaro Cantu, and he runs a restaurant in Chicago called Moto. I kid you not—edible menus, paper sushi, food that levitates.

Chicago somehow has become one of the nation's capitals of avant-garde, or shall I say weird, dining. All the way back in the column for February 2001, I had this to say about some of the newer trends in dinner concepts:

Weird food is the innovation of the day. In Paris you can get deep-fried Mars bars, which must seem wondrously exotic to the jaded palates of the French. In our own nation's capital, one restaurant offers an appetizer of sea urchin sprinkled with Altoids mints. At Sushi Samba in New York, twenty-nine dollars will get you—my God—"lobster sashimi," a freshly killed critter that comes to the table still waving its pincers. They sell forty orders a week of it. I never had any trouble writing about such stuff, but seeing it at the next table would, I have to say, send me out the door.

The future is invading the kitchens of our most adventurous restaurants at an astonishing pace. (These are

"edgy" restaurants, in the new sense of that word, and are sure to make this particular veteran gourmet "edgy" in the old sense.) For example, a three-star restaurant called El Bulli in Spain now serves chocolate smeared with mustard and squid ravioli containing coconut soup. (Gracias, no por me, señor!) The same—edgy, yes—restaurant offers an ice cream cone full of trout eggs, which actually doesn't sound so awful. They also have a yeast soup with sorbet. Sushi Samba in New York, where the pincer-waving lobsters are so groovy, lets you ease your uneasiness by quaffing cold sake that has the aroma of rotten eggs. And one of the fave appetizers is a plate of silver-dollar-sized crabs that you eat (fried, and dusted with kosher salt) right down to the claws. "Oh my God, they were scary," one diner told the Journal. "They looked like insects." (Why the kosher salt? Don't ask me. I'm neither a chef nor a rabbi. I can tell you, though, that you can fill a restaurant three feet deep with kosher salt and it still won't make crabs of any kind kosher.)

And then I went on to mention, back then, the seafood tartare course at Tru Restaurant in Chicago, which is a dish of chilled minced seafood served floating over a bowl containing a live Japanese fighting fish. "I was afraid it was going to jump out and bite my nose," one diner said. I did indeed dine at Tru myself a few months after I wrote that, during the 2000 Chicago

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World Science Fiction Convention, but either I failed to find the seafood tartare on the menu then or our entire group—my wife and I, and Joe and Gay Haldeman—saw it and decided to, well, chicken out.

Now we have Mr. Cantu's Moto, and the computer-generated sushi.

"The map is not the territory," said the famed semanticist Alfred Koryzybski in *Science and Sanity*, a book that attracted a great deal of attention in SF circles half a century ago. (A.E. van Vogt's celebrated novel *The World of Null-A* was allegedly based on the Koryzybski teachings.) That is indeed true of maps and territories, but not of Mr. Cantu's maki sushi, which is made not of crab and rice wrapped in seaweed, but of a *picture* of the same that he prints out on his Canon printer, using organic inks and edible paper made of soybeans and cornstarch. The back of the paper is flavored with a seasoning of powdered soy and seaweed, and the diners at Moto gobble this printed sushi with, I presume, enormous pleasure, as well they should, considering that they are paying two hundred forty dollars per person, wine included, for the twenty-course tasting menu at Moto. As it happens, I am not a great fan of sushi in its old-fashioned form, but if I were paying twelve dollars for a plate of sushi printouts I would endeavor greatly to find delight in it.

Every meal at Moto includes two or three items made of paper. This includes, as I said, the menu too: it's printed on the same edible paper, and you are expected to ball it up and drop it in your soup. You might get a printout of a cow flavored to taste like filet mignon, or,

perhaps, a splendid photo of some gooey dessert, from which you derive the flavor of the dessert but, wonderful to consider, none of the calories.

As for the levitating food—

That's not quite available yet. Call it a work in progress. All I can tell you is what the New York *Times* tells me, which is that "Mr. Cantu is experimenting with liquid nitrogen, helium, and superconductors to make foods levitate." What this will mean, in practice, I'm not sure. Possibly he envisages doing away with waiters entirely, and simply having your meal come floating out of the kitchen toward you. Or maybe your filet of sole will be delivered in the old-fashioned way, but will hover two or three inches above your plate when it comes to the table. If so, how do you cut it? (Just lean forward and bite off a chunk?) What if the levitating food develops lateral thrust as well as vertical, and wanders away from your table?

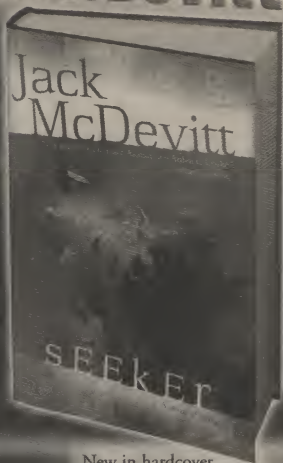
And how does the superconductive part work? Superconductivity, so I have been given to understand, is a phenomenon that takes place only at temperatures very close to absolute zero, and even in a really bad Chicago winter it's usually warmer than that *inside* your average restaurant. If Moto plans to offer supercooled dining conditions, I doubt that it's ever going to count me among its customers: I am widely known for my adventurous tastes in dining, but (after decades of soft living out here in California) I have no interest at all in chilling out at restaurants that maintain temperatures of two or three Kelvin. I don't have the right sort of wardrobe for that.

If the superconductive stuff

New from Jack McDevitt

**"The logical heir to
Isaac Asimov and
Arthur C. Clarke."
—Stephen King**

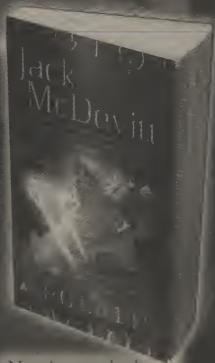
At the end of the twenty-seventh century, the passengers of the ship *Seeker* established a distant colony—and then vanished from history. Thousands of years later, antiquities dealer Alex Benedict has acquired a cup that seems to be from the ship, leading him down the deadly trail to the *Seeker*—and into the heart of danger.



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doesn't work out, Cantu has another plan for levitation up his sleeve: a hand-held ion-particle gun, already being tested, which thus far he has used to make salt and sugar jump around. I am unimpressed with this. Anybody can make salt jump around—put some on a hot skillet and watch what happens—but I foresee some time at the drawing board before a mere ion-particle gun can achieve mid-air osso buco or nongravitational lamb chops. (And imagine, if you will, levitating paella, with the rice drifting off in this direction, the mussels and clams going thisaway and thataway, the chorizo heading upward toward ceiling-level orbit—)

This cutting-edge chef, a relentless gadgeteer who used to take all his Christmas presents apart so that he could figure out how they were assembled, is planning to buy a three-dimensional printer—I didn't know that such things existed yet, but I'm not as cutting-edge as some science fiction writers I know, and maybe Cory Doctorow or Rudy Rucker can fill me in on this one—so that he can use his computer to create silicon molds for his concoctions. (He's talking about pill-sized dishes coming in such flavors as bacon-and-eggs, watermelon, or beef Bourguignon, or, perhaps, all of them at once.) Also on his shopping list is a class IV laser, the most powerful laser that the Occupational Safety and Health Administration will allow to be used. Ordinarily class IV lasers are used in welding or surgery, but, once he's sure of getting OSHA's blessing, Mr. Cantu wants to use it to whip up dishes that are "impossible through conventional means." Among them: sashimi tuna that's raw on the outside but cooked within, and "inside

out" bread that has the crust in the middle and the soft doughy part outside.

A Chicago outfit called DeepLabs is providing technical consultation for this project. "I tell them I want to make food float, I want to make it disappear, I want to make it reappear. I want to make the utensils edible, I want to make the plates, the table, the chairs edible," declares Mr. Cantu. "I ask them, what do I need to do that?" And the enterprising designers at DeepLabs, who clearly find Mr. Cantu a more stimulating employer than Home Depot or Motorola (two of their other clients), do what they can to oblige. They have created a combination fork-knife-spoon for him, and utensils with pressurized handles from which aromatic vapors come, and another one with a silicone handle that can hold liquefied or pureed foods, so that you just have to squeeze it and your sauce comes squirting forth.

Nor does his vaulting imagination stop at the stratosphere. He'd like to find ways of growing food down there at the superconductive temperatures, so that mankind can begin farming the fertile acres of Pluto. He's got some project for Mars, too. It wouldn't surprise me to learn that he's working up food-production concepts for the first Heinlein-style multi-generation starships—self-sustaining nutrient vats that make our present-day hydroponic concepts seem pitiful. And so forth, until the mind and alimentary canal both boggle.

This very twenty-first century chef believes that sophisticated diners are "sick and tired of steak and eggs. They're tired of just going to a restaurant, having food placed on the table, having it cleared, and there's no more mental input into it other than the basic needs of a

caveman, just eat and nourish."

Very well, Mr. Cantu. I accept the challenge. As all my friends know, my own credentials as a sophisticated diner need no affidavits. I've eaten the damndest strange things in the finest restaurants of every continent except Antarctica. The next time I'm in Chicago I'll check out your restaurant. I am undaunt-

ed by that two hundred forty dollar price tag. (It's deductible, after all—I'll be doing research for my next *Asimov's* column.)

I don't know about having dinner at two degrees Kelvin, though. I like it a lot warmer than that when I eat. I guess I'll need to check on the temperature at your place when I call to make that reservation. ○

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LETTERS

Dear Editor:

I have subscribed to *Asimov's* since it began. I especially enjoyed Daryl Gregory's, "Second Person, Present Tense" in your September 2005 issue. I love reading SF to relax when I am not working. I've grown to like many writers, including: Janet Kagan, Eleanor Arnason, Cynthia Felice, Kristine Kathryn Rusch, S.N. Dyer, Greg Egan, James Patrick Kelly, Mike Resnick, Allen Steele, and Connie Willis (in addition to my classic favorites like Isaac Asimov and Robert Silverberg).

Keep up the good work!

Beverly Waxler, MD
Morton Grove, IL

Thank you for your continuing support, Beverly. We're glad to report that some of the authors on your list above will be featured in upcoming issues.

Dear Editor,

Wow! I went from puzzled to, "oh, cool," to fascination, to reading as fast as I could move my eyes across the pages of "Second Person, Present Tense." Well done. I'll be finding Daryl Gregory's other stories today.

Patricia Logos
Efland, North Carolina

Dear Ms. Williams:

I originally learned about *Asimov's* while reading nonfiction essays and memoirs by Isaac Asimov. One day in the mid-nineties I saw an issue of *Asimov's* in my local used/new bookstore on the magazine rack. After

that first day, I would occasionally buy an issue. In late 2001 to early 2002, I was searching on Google for something completely unrelated to SF and noticed one of the top hits was the *Asimov's* web page. I started visiting the *Asimov's* Forum. Discussing the magazine on the Forum made me realize how important it was to me that I become a subscriber.

I have been a regular subscriber to *Asimov's* for a few years now. I'm also a regular poster on the Forum. I am as delighted to be discussing stories, books, and other topics of interest on the Forum as I was the first time I stumbled upon it. It is intellectually exciting to discuss a story you just read and have the author show up and make a few comments, or to play SF trivia games with notable names in the field such as Gardner Dozois. I particularly like checking out the "Books" and "Short Stories" section to see what people have been reading recently. Other threads that are fun include the "Ghost Hugo" threads, where fans discuss who they think should really have won Hugo and Nebula awards in retrospect. I invite all readers of *Asimov's* to come join us to discuss their *Asimov's* issues after they receive them. We don't always agree, but that is what makes it interesting.

Best wishes for the magazine,

E. Thomas
Oregon

Sheila:

I like a magazine to maintain a close relationship with its readers

and have been appreciating the insights you have been giving readers in your recent editorials about the conventions, the authors, and the staff. I also hope you will continue your columnist's first-rate reporting of SF on the internet.

The October/November issue was a real bang-up number. Ms. Duchamp's story poetically and rather sensitively conveys the feeling of the end of the world, distinguishing it from other stories of the type that simply interpret it in terms of events and likelihoods. It was a very soulful story, among its other attributes. The other stories continue in the spirit of this opener and it makes for an unusually good issue. I have it set aside for further interpretation.

I'm glad also to see Norman Spinrad's analytical look at trends in science fiction. I have never seen a close look being taken at these phenomena before, and since my major interest in SF is sociological, I'd be happy to see his approach continued by other writers. And Rudy Rucker's thought experiments make the issue!

Thanks for putting it all together just that way!

John Thiel
thiel@dcwi.com

Readers are encouraged to visit our Forum on the Asimov's website at www.asimovs.com for lively discussions about our magazine, science fiction, and many other topics.

Dear Mr. Silverberg,

Thank you very much for your April/May 2005 article "Fantasies about Fiction."

Any fiction story about the less pretty side of life actually helps us to be aware of it and watch out for it. Most people don't like it and want to

stop it. To pretend it doesn't exist allows it to happen. Stories about it in either a positive or negative manner empower us with knowledge or the resolution to do something to prevent it. The authors should be thanked, not ostracized.

Ron Steele
Australia

Dear Sheila,

When I opened the August *Asimov's* I was pleased to find that you reinstated the letters column. Then I read the correspondence—found politics and religion front and center—and I was doubly pleased. Bravo, Sheila. All the views that are fit to print, even if printing them give some readers fits.

But what's up with Carolyn Ostrom who took umbrage with Norman Spinrad's column? She seems quite adamant in her belief that politics have no place in a science fiction magazine. Where did she ever get such a notion?

Politics and fantastic fiction have been strange bedfellows for many long years. *Gulliver's Travels* was political satire. Likewise for *The Wizard of Oz*. H.G. Wells's *Time Machine* has clear political overtones, which comes as no surprise, since Wells was a political philosopher. The same goes for George Orwell who gave us *1984* and *Animal Farm*.

Yes, Norman Spinrad may be wrong about President Bush and the future of science fiction. So what? As a columnist, he's certainly entitled to voice his opinion. And it seems entirely appropriate that *Asimov's* be the place he makes his voice heard.

Oh, and let me not forget to mention the stories were great, too.

William McCarthy
East Stroudsburg, PA

AN EPISODE OF STARDUST

Michael Swanwick

Michael Swanwick is currently at work on a new novel. This spring, he's the guest of honor at Sferakon, Croatia's largest science fiction convention. In the meantime, he's been writing stories, creating tales for his author's blurb, and sending me poems by Robert Frost. Since Frost isn't in public domain, and since I usually stick to facts in my blurbs, these useless, but hilarious, letters will not be quoted here until Michael writes a sequel to "Letters to the Editor" (October/November 2001).

The lanky, donkey-eared fey got onto the train at a nondescript station deep in the steppes of Fäerie, escorted by two marshals in the uniform of His Absent Majesty's secret service. He smiled easily at the gawking passengers, as though he were a celebrity we had all come to see. One of the marshals was a sharp-featured woman with short red hair. The other was a tough-looking elf-bitch with skin so white it was almost blue. They both scowled in a way that discouraged questions.

The train returned to speed, and wheatfields flowed by the windows. This was the land where horses ate flesh and mice ate iron, if half the tales told of it were true, so doubtless the passing landscape was worth seeing. But I was born with a curiosity bump on the back of my skull, and I couldn't help wondering what the newcomer's crime had been, and what punishment he would receive when he arrived in Babylon.

So when, an hour or two later, the three of them got up from their seats and walked to the saloon car at the end of the train, I followed after them.

The usual mixture of unseelies and commercial travelers thronged the saloon, along with a dinter or two, a pair of flower sprites, and a lone ogre who weighed four hundred pounds if he was a stone. This last was so anxious to retrieve his beer when the duppy-man came by with a tray, that he stumbled into me and almost fell. "Watch where you're going, Shorty!" he barked. "You people are a menace."

"My people mined and smelted the tracks this train moves on," I said hotly. "We quarried the stone that clads the ziggurats at our destination, and delled the tunnel under the Gihon that we'll be passing through. If

you have any complaints about us, I suggest you take them up with the Low Court. But if your problem is against me personally, then Gabbro Hornfelsson backs down from nobody." I thrust my calling card at his loathsome face. "Be it pistols, axes, or hand grenades, I'll happily meet you on the field of honor."

The ogre blanched and fled, his beer forgotten. I didn't blame him. A dwarf in full wrath is a fearsome opponent, no matter how big you may be.

"Well spoken, Master Hornfelsson!" The donkey-eared fey clapped lightly, perforce pulling the red marshal's hand to which he was cuffed above their table. She yanked it back down with a glare. "I've convinced my two companions that, the way to Babylon being long and without further stops, there's no harm in us having a drink or two together. If you were to join us, I'd be honored to pick up your tab as well."

I sat down beside him and nodded at the briefcase the white marshal held in her lap. "That's evidence, I presume. Can you tell me its nature?"

"No, he cannot," the red marshal snapped.

"Stardust, moonstones, rubies the size of plovers' eggs . . ." the fey said whimsically. "Or something equally valuable. It might well be promissory notes. I forget its exact nature but, given how alluring it was, you could hardly blame me for making a play for it."

"And yet, oddly enough," said the red marshal, "we do."

"My name is Nat Whilk," the fey said without annoyance. I couldn't help noticing his Armani suit and his manticore-leather shoes. "And I believe that I may say, without boasting, that in my time I have been both richer and poorer than anyone in this car. Once, I was both at the same time. It's a long tale, but—" here he smiled in a self-deprecating way—"if you have the patience, I certainly have nothing better to do."

A white-jacketed duppy came by then to take our orders. I asked for a Laphroaig, neat, and the two marshals called for beer. Minutes later, Nat Whilk took a long sip of his gin-and-tonic, and began to speak:

I was a gentleman in Babel once (Nat began) and not the scoundrel you see before you now. I ate from a silver trencher, and I speared my food with a gold knife. If I had to take a leak in the middle of the night, there were two servants to hold the bedpan and a third to shake my stick afterwards. It was no life for a man of my populist sensibilities. So one day I climbed out a window when nobody was looking and escaped.

You who had the good fortune of being born without wealth can have no idea how it felt. The streets were a kaleidoscope of pedestrians, and I was one of them, a moving speck of color, neither better nor worse than anyone else, and blissfully ignored by all. I was dizzy with excitement. My hands kept rising into the air like birds. My eyes danced to and fro, entranced by everything they saw.

It was glorious.

Down one street I went, turned a corner at random, and so, by Brownian motion, chanced upon a train station where I took a local to ground level. More purposefully then, I caught a rickshaw to the city limits and made my way outside.

The trooping fairies had come to Babel and set up a goblin market just

outside the Ivory Gate. Vendors sold shish kabob and cotton candy, T-shirts and pashmina scarves, gris gris bags and enchanted swords, tame magpies and Fast Luck Uncrossing Power vigil candles. Charango players filled the air with music. I could not have been happier.

"Hey, shithead! Yeah, you—the ass with the ears! *Listen* when a lady speaks to you!"

I looked around.

"Up here, Solomon!"

The voice came from a booth whose brightly painted arch read *Rock! The! Fox!* At the end of a long canvas-walled alley, a vixen grinned at me from an elevated cage, her front feet tucked neatly under her and her black tongue lolling. Seeing she'd caught my eye, she leapt up and began padding quickly from one end of the cage to the other, talking all the while. "Faggot! Bed-wetter! Asshole! Your dick is limp and you throw like a girl!"

"Three for a dollar," a follet said, holding up a baseball. Then, mistaking my confusion for skepticism, he added, "Perfectly honest, *monsieur*," and lightly tossed the ball into the cage. The vixen nimbly evaded it, then nosed it back out between the bars so that it fell to the ground below. "Hit the fox and win a prize."

There was a trick to it, I later learned. Though they looked evenly spaced, only the one pair of bars was wide enough that a baseball could get through. All the vixen had to do was avoid that spot and she was as safe as houses. But even without knowing the game was rigged, I didn't want to play. I was filled with an irrational love for everyone and everything. Today of all days, I would not see a fellow creature locked in a cage.

"How much for the vixen?" I asked.

"*C'est impossible*," the follet said. "She has a mouth on her, sir. You wouldn't want her."

By then I had my wallet out. "Take it all." The follet's eyes grew large as dinner plates, and by this token I knew that I overpaid. But after all, I reasoned, I had plenty more in my carpetbag.

After the follet had opened the cage and made a fast fade, the vixen genuflected at my feet. Wheedlingly, she said, "I didn't mean none of the things I said, master. That was just patter, you know. Now that I'm yours, I'll serve you faithfully. Command and I'll obey. I shall devote my life to your welfare, if you but allow me to."

I put down my bag so I could remove the vixen's slave collar. Gruffly, I said, "I don't want your obedience. Do whatever you want, obey me in no matters, don't give a thought to my gods-be-damned welfare. You're free now."

"You can't mean that," the vixen said, shocked.

"I can and I do. So if you—"

"Sweet Mother of Beasts!" the vixen gasped, staring over my shoulder. "Look out!"

I whirled around, but there was nothing behind me but more booths and fair-goers. Puzzled, I turned back to the vixen, only to discover that she was gone.

And she had stolen my bag.



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So it was that I came to learn exactly how freedom tastes when you haven't any money. Cursing the vixen and my own gullibility with equal venom, I put the goblin market behind me. Somehow I wound up on the bank of the Gihon. There I struck up a conversation with a waterman who motored me out to the docks and put me onto a tugboat captained by a friend of his. It was hauling a garbage scow upriver to Whinny Moor Landfill.

As it turned out, the landfill was no good place to be let off. Though there were roads leading up into the trashlands, there were none that led onward, along the river, where I wanted to go. And the smell! Indescribable.

A clutch of buildings huddled by the docks in the shadow of a garbage promontory. These were garages for the dump trucks mostly, but also Quonset hut repair and storage facilities and a few leftover brownstones with their windows bricked over that were used for offices and the like. One housed a bar with a sputtering neon sign saying *Brig-O-Doom*. In the parking lot behind it was, incongruously enough, an overflowing dumpster.

Here it was I fetched up.

I had never been hungry before, you must understand—not real, gnaw-at-your-belly hungry. I'd skipped breakfast that morning in my excitement over leaving, and I'd had the lightest of dinners the day before. On the tugboat I'd watched the captain slowly eat two sandwiches and an apple and been too proud to beg a taste from him. What agonies I suffered when he threw the apple core overboard! And now . . .

Now, to my horror, I found myself moving toward the dumpster. I turned away in disgust when I saw a rat skitter out from behind it. But it called me back. I was like a moth that's discovered a candle. I hoped there would be food in the dumpster, and I feared that if there were I would eat it.

It was then, in that darkest of hours, that I heard the one voice I had expected never to hear again. "Hey, shit-for-brains! Aintcha gonna say you're glad to see me?"

Crouched atop a nearby utility truck was the vixen.

"You!" I cried, but did not add *you foul creature*, as my instincts bade me. Already, poverty was teaching me politesse. "How did you follow me here?"

"Oh, I have my ways."

Hope fluttered in my chest like a wild bird. "Do you still have my bag?"

"Of course I don't. What would a fox do with luggage? I threw it away. But I kept the key. Wasn't I a good girl?" She dipped her head, and a small key on a loop of string slipped from her neck and fell to the tarmac with a sharp *clink*.

"Idiot fox!" I cried. "What possible good is a key to a bag I no longer own?"

She told me.

The Brig o' Doom was a real dive. There was a black-and-white television up in one corner tuned to the fights and a pool table with ripped felt

to the back. On the toilet door, some joker had painted *Tir na bOg* in crude white letters. I sat down at the bar. "Beer," I told the tappie.

"Red Stripe or Dragon Stout?"

"Surprise me."

When my drink came, I downed half of it in a single draft. It made my stomach ache and my head spin, but I didn't mind. It was the first sustenance I'd had in twenty-six hours. Then I turned around on the stool and addressed the bar as a whole: "I'm looking for a guide. Someone who can take me to a place in the landfill that I've seen in a vision. A place by a stream where garbage bags float up to the surface and burst with a terrible stench—"

A tokoloshe snorted. He was a particularly nasty piece of business, a hairy brown dwarf with burning eyes and yellow teeth. "Could be anywhere." The fossegrim sitting with him snickered sycophantically. It was clear who was the brains of this outfit.

"—and two bronze legs from the lighthouse of Rhodes lie half-buried in the reeds."

The tokoloshe hesitated, and then moved over to make space for me in his booth. The fossegrim, tall and lean with hair as white as a chimneysweeper's, leaned over the table to listen as he growled *sotto voce*, "What's the pitch?"

"There's a bag that goes with this key," I said quietly. "It's buried out there somewhere. I'll pay to find it again."

"Haughm," the tokoloshe said. "Well, me and my friend know the place you're looking for. And there's an oni I know can do the digging. That's three. Will you pay us a hundred each?"

"Yes. When the bag is found. Not before."

"How about a thousand?"

Carefully, I said, "Not if you're just going to keep jacking up the price until you find the ceiling."

"Here's my final offer: Ten percent of whatever's in the bag. Each." Then, when I hesitated, "We'll pick up your bar tab, too."

It was as the vixen had said. I was dressed as only the rich dressed, yet I was disheveled and dirty. That and my extreme anxiety to regain my bag told my newfound partners everything they needed to know.

"Twenty percent," I said. "Total. Split it however you choose. But first you'll buy me a meal—steak and eggs, if they have it."

The sun had set and the sky was yellow and purple as a bruise, turning to black around the edges. Into the darkness our pickup truck jolted by secret and winding ways. The grim drove and the tokoloshe took occasional swigs from a flask of Jeyes Fluid, without offering me any. Nobody spoke. The oni, who could hardly have fit in the cab with us, sat in the bed with his feet dangling over the back. His name was Yoshi.

Miles into the interior of the landfill, we came to a stop above a black stream beside which lay two vast and badly corroded bronze legs. "Can you find a forked stick?" I asked.

The tokoloshe pulled a clothes hanger out of the mingled trash and clay. "Use this."

I twisted the wire into a wishbone, tied the key string to the short end, and took the long ends in my hands. The key hung a good half-inch off true. Then, stumbling over ground that crunched underfoot from buried rusty cans, I walked one way and the other, until the string hung straight down. "Here."

The tokoloshe brought out a bag of flour. "How deep do you think it's buried?"

"Pretty deep," I said. "Ten feet, I'm guessing."

He measured off a square on the ground—or, rather, surface, for the dumpings here were only hours old. At his command, Yoshi passed out shovels, and we all set to work.

When the hole reached six feet, it was too cramped for Yoshi to share. He was a big creature and all muscle. Two small horns sprouted from his forehead and a pair of short fangs jutted up from his jaw. He labored mightily, and the pile of excavated trash alongside the hole grew taller and taller. At nine feet, he was sweating like a pig. He threw a washing machine over the lip, and then stopped and grumbled, "Why am I doing all the work here?"

"Because you're stupid," the fossegrim jeered.

The tokoloshe hit him. "Keep digging," he told the oni. "I'm paying you fifty bucks for this gig."

"It's not enough."

"Okay, okay." The tokoloshe pulled a couple of bills from his pocket and gave them to me. "Take the pickup to the Brig-O and bring back a quart of beer for Yoshi."

I did then as stupid a thing as ever I've done in my life.

So far I'd been following the script the vixen had laid out for me, and everything had gone exactly as she'd said it would. Now, rather than playing along with the tokoloshe as she'd advised, I got my back up. We were close to finding the bag and, fool that I was, I thought they would share.

"Just how dumb do you think I am?" I asked. "You won't get rid of me that easily."

The tokoloshe shrugged. "Tough shit, Ichabod."

He and the fossegrim knocked me down. They duct-taped my ankles together and my wrists behind my back. Then they dumped me in the bed of the pickup. "Scream if you want to," the tokoloshe said. "We don't mind, and there's nobody else to hear you."

I was terrified, of course. But I'd barely had time to realize exactly how desperate my situation had become when Yoshi whooped, "I found it!"

The fossegrim and the tokoloshe scurried to the top of the unsteady trash pile. "Did you find it?" cried one, and the other said, "Hand it up."

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"Don't do it, Yoshi!" I shouted. "There's money in that bag, a lot more than fifty dollars, and you can have half of it."

"Give me the bag," the tokoloshe said grimly.

By his side, the fossegrim was dancing excitedly. Bottles and cans rolled away from his feet. "Yeah," he said. "Hand it up."

But Yoshi hesitated. "Half?" he said.

"You can have it *all*!" I screamed. "Just leave me alive and it's yours!"

The tokoloshe stumbled down toward the oni, shovel raised. His buddy followed after in similar stance.

So began a terrible and comic fight, the lesser creatures leaping and falling on the unsteady slope, all the while swinging their shovels murderously, and the great brute enduring their blows and trying to seize hold of his tormentors. I could not see the battle—no more than a few slashes of the shovels—though I managed to struggle to my knees, for the discards from Yoshi's excavations rose too high. But I could hear it, the cursing and threats, the harsh clang of a shovel against Yoshi's head and the fossegrim's scream as one mighty hand finally closed about him.

Simultaneous with that scream there was a great clanking and sliding sound of what I can only assume was the tokoloshe's final charge. In my mind's eye I can see him now, racing downslope with the shovel held like a spear, its point aimed at Yoshi's throat. But whether blade ever connected with flesh or not I do not know, for it set the trash to slipping and sliding in a kind of avalanche.

Once started, the trash was unstoppable. Down it flowed, sliding over itself, all in motion. Down it flowed, rattling and clattering, land made liquid, yet for all that still retaining its brutal mass. Down it flowed, a force of nature, irresistible, burying all three so completely there was no chance that any of them survived.

Then there was silence.

"Well!" said the vixen. "That was a tidy little melodrama. Though I must say it would have gone easier on you if you'd simply done as I told you to in the first place." She was sitting on the roof of the cab.

I had never been so glad to see anybody as I was then. "This is the second time you showed up just when things were looking worst," I said, giddy with relief. "How do you manage it?"

"Oh, I ate a grain of stardust when I was a cub, and ever since then there's been nary a spot I can't get into or out of, if I set my mind to it."

"Good, good, I'm glad. Now, set me free!"

"Oh dear. I wish you hadn't said that."

"What?"

"Years ago and for reasons that are none of your business I swore a mighty oath never again to obey the orders of a man. That's why I've been tagging along after you—because you ordered me not to be concerned with your welfare. So of course I am. But now you've ordered me to free you, and thus I can't."

"Listen to me carefully," I said. "If you disobey an order from me, then you've obeyed my previous order not to obey me. So your oath is meaningless."

"I know. It's quite dizzying." The fox lay down, tucking her paws beneath her chest. "Here's another one: There's a barber in Seville who shaves everyone who doesn't shave himself, but nobody else. Now—"

"Please," I said. "I beg you. Sweet fox, dear creature, most adorable of animals . . . If you would be so kind as to untie me out of the goodness of your heart and of your own free will, I'd be forever grateful to you."

"That's better. I was beginning to think you had no manners at all."

The vixen tugged and bit at the duct tape on my wrists until it came undone. Then I was able to free my ankles. We both got into the cab. Neither of us suggested we try digging for my bag. As far as I was concerned, it was lost forever.

But driving down out of the landfill, I heard a cough and glanced over at the vixen, sitting on the seat beside me. More than ever, I felt certain that she was laughing at me. "Your money's in a cardboard box under the seat," she said, "along with a fresh change of clothing—which, confidentially, you badly need—and the family signet ring. What's buried out there is only the bag, stuffed full of newspapers."

"My head aches," I said. "If you had my money all along, what was the point of this charade?"

"There's an old saying: Teach a man to fish, and he'll only eat when the fish are biting. Teach him a good scam, and the suckers will always bite." The vixen grinned. "A confidence trickster can always use a partner. We're partners now, you and me, ain't we?"

When the story ended, I stood and bowed. "Truly, sir, thou hast the gift of bullshit."

"Coming from a dwarf," Nat said, "that is high praise indeed."

One of the marshals—the white one—stood. "Too much beer," she said. "I have to use the powder room."

Her comrade looked pointedly at the briefcase, and in that glance and the way the marshal drew herself up at it, I read that the two women neither liked nor trusted each other. "Where could I go?" White asked.

"Where in the regulations does it say that makes any difference?" Red replied. "The evidence case must remain within sight of two designated agents at all times."

With a sigh, the white marshal freed herself from the briefcase and handcuffed it to her red-haired compatriot. Then she put her hand on my shoulder and said, "All right, Short Stuff, I'm deputizing you as a representative of His Absent Majesty's governance. Keep an eye on the case for the duration of my tinkle, okay?"

I didn't think much of her heightist slur, of course. But a gentleman doesn't go picking fights with ladies. "Fine," I said.

As soon as she was gone, Nat Whilk said, "That calls for a smoke." He held out a hand, twisted it about, and a Macanudo appeared between thumb and forefinger. He bit off the end and was about to conjure up a light when our duppy-man appeared at his elbow.

"I'm sorry, sir," the duppy said firmly. "But smoking is not allowed inside the train."

Nat shrugged. "Well, then. It's the rear platform or nothing, I suppose."

He turned to his companion and said, "Shall we?" Then, when she hesitated, "I'm hardly likely to throw myself from the train. Not at these speeds."

His words convinced her. A C-note laid down on the table, and Nat's polite direction to the duppy to let me drink my fill and then pocket the change, made our two faces smile. I watched as he and the marshal stepped to the rear of the car, and through the door. Nat leaned against the rail. A wisp of smoke from the cigar was seized by the wind and flung away.

I watched them for a while. Then my second drink came. I had just taken my first sip of it when the white marshal returned.

"Where are they?" she cried.

"They went—" I gestured toward the rear platform, and froze. Through the door windows it could be seen that the platform was empty. Lamely, I said, "They were there a second ago."

"Sweet Mother of Night," the marshal cried, "that case contained over twenty ounces of industrial-grade stardust!"

We ran, the both of us, to the platform. When we got there, we saw two small figures in the distance, standing by the side of the track, waving. As we shouted and gestured, one of the two dwindled in size until it was no larger than a dog. It was red, like a fox, and I got the distinct impression it was laughing at us.

The fox trotted away. Nat Whilk followed it down a sandy track into the scrub. Our shouts dwindled to nothing as we realized how futile they were.

The train turned a bend and the two tricksters disappeared from our ken forever. ○

FIELD TRIP

She'd rather stay home
Instead of going on this
Trip again. Every other
Year her class would come
To see the ruins, to linger
At the cracked egg shell dome
Who cares about the freakish
Five-fingered ancestors?
Why bother about why
They constantly stared up
At the starless sky?

—Sophie M. White



IN THE SPACE OF NINE LIVES

R.R. Angell

In addition to his MBA, Bob Angell has studied physics and chemistry, trained as an engineer, and attended Clarion West. He's a triathlete who's interested in deep space exploration, nanotechnology, renewable energy sources, fish farming, manufacturing, psychology, sailing, cooking, telemedicine, and new product development. At the moment, he's working on a telemedicine novel entitled *Doc in the Box*. Bob lives with his partner of seventeen years and two cats of three years. His web site is www.rrangell.com. "In The Space Of Nine Lives" is his first story for *Asimov's*.

The ship's cat slipped from Tom's grip and ran up the curving floor toward the galley. As he stalked her, young Tom felt less sure of himself. He could talk it over with Pilot, but Pilot was in stim and not to be bothered unless it was an emergency.

Was a dare an emergency? Only if he failed.

His standing among his stim friends would plummet again, and he'd be teased and shunned. So what if his friends weren't real? When he was in stim, they could beat him up just as well. And they could ignore him anywhere in the ship. His stim friends were living, after all, just in a different way. Tom enjoyed their company, except when he was being teased, but that was part of growing up, as Pilot would say. It didn't matter if the kid was on-planet or on a colony transport ship, kids were kids, and he had to deal with them in school no matter what.

So he followed Widget around the habitat ring and found her at her feeding station. He removed his shirt, snaring her, then went to one of the access tubes and climbed toward the hub. His spirits lightened with his weight. She wriggled in the makeshift bag, but he was determined.

The hatch closed behind him as he floated out of the hub, and he

grabbed a handhold to stop spinning. Tom turned the cat loose in the sterile corridor between the habitat and farm wheels. He laughed as she reached for everything, her tail whipping her body this way and that, turning her into a wild, gyrating ball of fur and claws.

"Now the first lesson in no-grav is to stay calm and move real slow until you get used to it," he said to her. This didn't stop her from trying to claw her way to a wall. She started howling.

"So that's what happens," Singh said from the view panel. Dottie and Singh were watching. Singh stared at the animal while Dottie stuck out her tongue.

"Are you happy, now?" Tom blurted. He tried to find a way to grab the cat without getting scratched. His friends giggled behind him. He turned on them. "Screen off," he yelled. They were gone, but yelling only made things worse. This wasn't quite what he had in mind.

He reached for her. Frantic claws ripped into his arm, slashed across his cheek, as she pulled herself to him. The pain was immediate and searing. His screaming only made her dig in. Red globs of blood floated around his head. His breath came shallow and rapid.

Then he was angry.

Tom launched himself down the corridor toward the waste disposal unit. He hit the button with his elbow. The small capsule door rotated open to yellow flashing lights and a loud clanging klaxon that terrified them both. Widget bit at his gripping hands.

He stuffed the cat into the open cylinder and shook her free of his arm. She clawed at the slick walls, as a bead of his blood landed on the white part of her half-black face. He slammed the eject button with the heel of his palm, cracking the plastic cover. The door swiveled shut. Red lights pulsed into shadows along the corridor. The klaxon sounded a new warning. Tom floated back from the door's small window as the countdown started from ten, and the vacuum pump engaged. He saw a paw, then her nose, and then Widget's eye as she looked at him, a bloody tear accusing.

Nine. Pilot came flying through the hub door, shouting something. Eight.

"What are you doing?"

Seven. Pilot pulled himself up the corridor rails, accelerating toward him. Six. The man flipped around and kicked Tom out of the way, sending him spinning into a wall. Five. Pilot shattered the CANCEL button with his hand, cutting himself. Four. Air hissed back into the chamber.

Pilot attacked.

In one movement, the man swirled around and backhanded Tom across the face, spraying droplets of blood through the air. Pilot grabbed the boy by the belt and pulled him toward the disposal unit, hitting the button with his elbow and starting the yellow lights and noise all over again. Pilot pulled Widget out with his free hand, allowing her to dig into his shirt and flesh. He tried stuffing the boy into the small box, but Tom was too big, and he squirmed too much.

Pilot let the boy go. He curled his arms around Widget, holding her to his chest.

"I wasn't really going to do it," Tom said.

* * *

Back in the galley, Pilot ministered to Tom's wounds without comment. He sealed the gash on Tom's cheek with healtape, pressing hard.

"Ouch." Tom pulled away. "I said I was sorry. You could have made another cat, you know."

"What did you say?" Pilot leaned into the boy's face. "How can you say that? She's my cat. She's been around a lot longer than you have. It'd be just as easy to make another you, as it would be to make a Widget. Don't ever forget that."

Pilot slapped the last healtape in place. Tom's pale skin reddened as he pulled away.

"Little one, I'm sorry," Pilot said. "I'd never."

Tom closed his eyes and reached out. Pilot hugged the boy.

"Did you ever do something like that?"

"We've all played with the cats in the corridor at some point," Pilot said.

"Let it go. There are better things ahead of you."

"Like what?"

"You'll see."

After school, Tom and Dottie walked down the cracked and uneven sidewalk on their tree-lined stim street. She had taken to pushing him off the sidewalk and giggling.

"Cut it out."

She frowned when he stayed in the grass. "Come on," she said, waving him back. "I'll stop. Elaina Shakara would want me to."

Dottie stopped and waited, smoothing her plaid skirt. "Look! Someone's moving in next door to your house," she said.

A moving van was parked in front of the bungalow next to Tom's. Large men carried a sofa down a metal ramp as a redheaded boy watched, hands crammed in his pockets. He was about Tom's height, a bit stockier.

"I'm Dottie," she said. "I live across the street."

The boy looked where she pointed. "Mark," he said, to Tom.

Tom watched the movers carry the sofa up the green-painted stairs of Mark's new house.

"That's Tom," Dottie said. "He lives next door. That one, with the gray stairs and brown shingles."

Tom had to look at the boy, now that introductions had been made. Mark's hair matched the color of his freckles, making him look dusty. His eyebrows were almost invisible over crystal blue eyes that held Tom there. "Hi," he said.

Dottie could be so annoying, chatting on about the other neighbors.

"How old are you?" Tom said.

"Twelve."

"Same as me. Did you know there's a stream in the woods back there?"

"Okay, buddy-boy," the redhead said. "Show me."

"Dottie, we gotta go. See ya," Tom said, with hardly a glance. They left her standing there, and ran between the houses, across the overgrown field, and on into the woods.

"Up that way is a pond deep enough to swim in."

"I'm not that good a swimmer," Mark said.

Clear water rippled over sand down in the streambed. Sticks wedged between rocks formed little dams. Tiny minnows hovered and flashed while birds twittered above in the branches.

"Hey, look there," Mark said, and splashed across to the other side. A series of small holes, some with mounds of mud around them, peppered the bank. "Perfect," Mark said, slipping his finger in one.

"Aren't those snake holes?"

"No. Watch." Mark dug quickly, shoving his hand into the mud hole. He winced and yanked his hand out. "Damn. I always forget that first bite."

"What's in there?"

"You'll see," Mark said, shoving his hand into another hole. This time he winced, but reached deeper. Mark smiled, and pulled out a five-inch-long crawfish. "Not bad, huh? When they bite you, you know they are there. You got to ignore the pain, and reach in deeper if you want to catch one."

Tom couldn't let this new kid show him up, and he didn't want to be a wimp. Mark was different. This didn't feel like a setup. It felt like sharing.

"Okay," Tom said. He scrunched his fingers together, and shoved them into a hole. Cold, soft mud slipped around his hand like a glove. He pressed past a thin root and kept reaching. "Ouch," he yelled, quickly retracting his hand. "That hurt." He watched a tiny dot of blood on his finger.

"Told ya," Mark said, laughing. "You have to ignore it, keep going. Let me see." Mark took Tom's hand and held it under close scrutiny, smoothing away the mud and blood. "Yeah, he got you all right," he said, grinning.

Mark threw himself into Tom. They fell up the bank, wrestling in the sparse grass, each probing for leverage until they rolled down into the cold, shallow water. Tom landed on a tree root and suppressed a yelp. Mark pulled him out, and they lay back against the bank, laughing together in dappled sunshine.

"Pilot?" Tom called as he ran.

Past the galley, the door to Pilot's stim chamber was open. Tom ducked inside, feeling the empty chamber pushing him gently away. He was too happy to care, full of energy and good news. He raced around the habitat, calling out for Pilot.

Pilot was in his quarters, sitting quietly on his bed. Widget, partially wrapped in a towel, lay beside him.

"She's dead, Tom," Pilot said. "I'm sorry."

"How?" Tom stared. Her fur looked dull and flat against her bones. He didn't want to touch her.

"It was her time. I've been here with her all afternoon."

Pilot pulled him close, stroked his hair. The warm strength of Pilot soothed him. This embrace, familiar and comforting, was so different from Mark's electric touch.

Tom touched the lifeless body, and pulled back as emotions tumbled through him. He wouldn't cry.

"Little one," Pilot said, cradling Tom's head against his shoulder. They hadn't hugged like this in over a year. At fifteen, Tom was bigger, lanky, and almost as tall as Pilot. His thoughts turned to Mark, and he pulled away.

"You were calling me?" Pilot said. "Are you all right? What did you want?"

"Mark and I," he began, then shook his head, suddenly private.

Tom wanted to say that he and Mark had camped out in the field last night. Their thick blanket pressed down the tall grasses, making a kind of room. The stars had shone like sparks winking around the brilliant moon. They had run naked to the pond, chasing each other, swimming in moonlit shallows. The silvered water caressed and held them together. A meteor shower had splashed across the sky.

He was in love, but Pilot already knew. So he said nothing.

Pilot folded the towel over Widget's body and stood. "Come," he said. "We have work to do."

Tom followed him out and up the access tube to the hub. Floating down the corridor, Tom glanced at the disposal unit with its smashed button, and hurried himself along ahead of Pilot. Before, only Pilot could open the Con door. Now the door opened as Tom approached, swinging toward him in welcome.

He eagerly strapped himself into the copilot's station, taking in the colorful holographic displays showing the visual status of the ion fountain drive, and a view of the unmoving stars. For a long time he stared, looking for the slightest movement out there, until Pilot interrupted.

"This is the Crèche, Tom, the artificial womb. Today, we select a new cat." He pointed to the diagram on the console. "This is where you operate the egg-retrieval unit. Go ahead. You do it."

Tom moved his chair to the console and grasped the controls. The Crèche helped him guide the calipers across an array of frozen ampoules. He hesitated.

"How do I choose?"

"You just do," Pilot said. "This is your choice to make."

Tom guided the unit up and to the right, and found a cluster of missing ampoules there. No, he thought, somewhere else, somewhere new. Tom selected a vial from the lower left quadrant and slipped it into the injector. The system took over and released him.

"Very good. This egg will grow into our new Widget. She will be born then," Pilot said, indicating a new tick on the timeline above them.

"Will this be the old Widget?"

"She'll look the same, have the same genes, and will pretty much act the same. But, she's entirely her own, new self. She'll prefer you to me."

"You know what she's gonna do and how long she's gonna live?"

"Of course. I've known four Widgets in my life," Pilot said. "Uninterrupted, they live for fourteen years." Pilot frowned.

"And I can tell you that the Crèche isn't just for making kittens." Pilot paused. "There's something special you get to do, but that's a long way away."

"What? Tell me."

"When you turn thirty, you'll get to select the next little one. Like I selected you." Pilot watched the stars for a while. "Of course, if you don't, the ship will probably do something on its own."

"What do you mean, you selected me?" Tom studied Pilot's familiar face, the soft brown hair, the eyes very like his own. "How many pilots will there be?" he asked.

"Nine."

A sudden, undefined anger flooded through Tom, then melted as quickly away, leaving him with a hollow sense of belonging. And fear.

"Will I die here?"

Pilot shook his head. "When you're fifty-five, you'll join me and the rest of the citizens in hibernation. When the mission has been completed, we'll all wake up together at the new world."

"But we'll all be the same," Tom said.

"Not quite. Each of us grows up in stim with a different set of friends, all of them aboard in hibernation. We'll each have our own group, people we'll feel comfortable with at the end. Each of them can see records of the time spent with us, our childhoods together. The two exceptions are Elaina Shakara—our colony leader—and Mark."

"Is Mark in hibernation?" Tom looked over his shoulder, as if he could see the cavernous hibernation hive behind them.

"Mark is on the ship," Pilot said. "He's here." He glanced at the blank view screen.

"So where?" Tom said, and stopped. "We're gonna be together forever," he said fiercely, focusing on Pilot. "Forever! Just him and me."

Pilot closed his eyes at Tom's anger.

Mark frog-kicked across the shallows and stood, chest deep, at the edge of the drop-off. He never went further. Only deep emerald water lay between him and the jumping rock where Tom stood dripping and naked in warm sunlight, holding onto the end of the rope swing.

"You're getting better," Tom said. "Come up and try the swing." Tom leaned back and, holding the rope, launched himself out over the pond. As he swung out, he flipped his legs above his head and stretched against the rope, six meters up. He let go at the top of the arc, and dove toward the center of the pool, knifing through the surface with barely a splash.

Tom went deep into the murky green and looked up as the ripples moved across the surface like liquid prisms catching the sun. Mark stood at the drop-off, his silhouette wavered and blurred above the surface.

What would Mark do? The inspiration took and he resisted swimming up, letting his body go limp. Mark shifted from one foot to the other, his hands brushing at the water as if to move it aside. Then he stepped off and paddled out, his arms and legs uncoordinated. No wonder he couldn't swim.

He was looking for Tom.

Tom smiled. Maybe this was the push that would make Mark overcome his fear of deep water.

Mark was reaching down, first with his hands then his feet, and then Mark was spinning in place, his arms wild. Tom kicked upward and

grabbed Mark's feet, pulling himself up the ghostly legs. He hadn't meant to pull Mark under.

Mark was gasping and flailing when Tom surfaced. Tom stopped laughing when he saw Mark's panic. He let Mark cling to him as he swam hard for the shore.

Mark fell against the bank, unable to breathe.

"Here, turn upside down," Tom said, spinning Mark around and rolling him onto his stomach. Mark coughed up water and lay gasping.

"Are you okay?" Tom said, leaning over him. "Do I need to give you mouth-to-mouth?" Tom grinned when Mark turned toward him.

"Why did you do that?" Mark yelled. "That was the meanest thing you could ever do."

"It's okay. I just wanted to get you out in the deep so you could see how easy it is," Tom said. "Don't be such a wimp."

"What if you were hurt?" Mark said. "You'd kill us both."

"All the more reason for you to learn to swim. Besides, you could jump off the rope with me."

"You and your stupid rope."

"It's fun."

"It's dangerous."

"For once, will you just try it? You'll see how much fun it is."

"I can't. I'm scared of it, okay?" Mark sat on the bank and pulled his knees to his chest.

"I was scared, too," Tom said. "Heck, it took me weeks before I could even let go. Remember? And look what I can do now." Tom touched Mark's shoulder. Mark twisted away. "You haven't tried in two years."

"And I'm not going to. It's dangerous. Face it. I can't swim like you." Mark stared at the rope swaying over the water, hatred in his eyes. He turned to Tom. "I don't want you using that rope anymore. You're going to hurt yourself, and I won't be able to help you."

"Mark, look, I," he said, as Mark stood up and started off around the pond. "What are you doing?"

"I'm going to climb up and untie it. At least I'm not afraid of heights."

"No! Damn it, don't you dare."

"Yeah? What are you going to do about it?" Mark stepped out onto the jumping rock and picked up the stick.

"I'll never speak to you again."

"Fat chance of that," Mark said, reaching out with the stick to grab the knot on the end of the rope. Tom watched as Mark gingerly reached for the knot, pulling it to him.

"Mark!"

"I can't have my boyfriend doing stupid things all the time. Someone has to take care of you." Mark took a deep breath and jumped onto the rope. He swung out over the water and pulled himself up the rope so that he was sitting on the knot. He was shaking.

"Mark, don't."

"It's for your own good, Tom." Mark began shimmying up the rope toward the limb high above.

"Stop it," Tom screamed.

"No!"

Tom grabbed his shorts and shirt and stomped off into the woods. A little ways up the path, he paused to slip into his clothes. They clung where he was still wet. Why was Mark always doing things to make him angry? Pilot was never any help.

Tom heard a splash.

Mark must have gotten the rope free and dropped it in the pond. Damn him. He'd have to find someone who could climb up there and put it back.

Boyfriend? Mark had said boyfriend. Tom stopped on the path. Mark might be afraid of the deep end, but he had never been afraid of love, or of Tom. Yes, boyfriend. For real.

Tom turned and ran back down the path. "I'm sorry," he yelled as loudly as he could. "Mark, I'm sorry."

He ran out of the woods, looking up into the tree for Mark. He shouted, "I'm sor—"

The rope hung there, bouncing back and forth. Mark lay face down in the water.

Tom was in, and swam with all his strength. Tom had him on his back, swimming him to shore. Then he was on Mark's back, pressing the water out of him. He heard someone screaming. He pressed his mouth to Mark's, blowing air into his lungs. His hand slid across Mark's bloody scalp. Mark was still warm, but he was cooling.

Tom gave him air. Hugged him for warmth. They lay together in the sunlight.

Someone was crying.

On the lounge sofa, Pilot held Tom while Widget rubbed against their legs.

"Can't I make a new Mark?"

Pilot shook his head.

"I can bring him back. I know I can."

Pilot held him tighter.

"He's in stim. I can learn how stim works and rewrite him."

"There's a lot to learn," Pilot said.

"It doesn't matter how much."

"It won't be the same, little one."

"I can bring him back," Tom said. "I have to."

For two months, the farm and habitat wheels had been allowed to spin down, absorbing breaking energy from the stabilizing gyroscopes. They were now living in one-quarter gravity. Only the cat, Widget, seemed to mind. She refused to enter the hard-floored galley, even to eat. Tom had started feeding her in the carpeted hallway.

They had finished harvesting and processing the aquaculture crops, and had drained the tanks, sealed the gel hydroponics trays, and fastened down or stowed all the hand-trowels, sprayers, and farmer mechs. Everything in the habitat had been lockered away, including the cat, stuffed howling and scratching into a small, padded cage for protection against sudden accelerations during the flip.

Pilot and Tom spent the last hour waiting in the Con, monitoring the reactors as they shut down, watching the simulated plume of the fountain drive dwindle and gutter out.

"A year from now, I'll be in hive with the citizens. And then we'll wake up together." Pilot sighed. "I'm tired, Tom. Ready for the non-wait. I've been thinking about going in a little sooner, if things allow." Pilot watched his reaction.

It was okay for Pilot to hibernate early. Tom would be just fine. He was an adult, a seasoned pilot at twenty-three, and together they were about to perform the most complicated maneuver during the entire mission.

He had his stim friends for company, though Dottie had gotten interested in Seth, a guy she worked with in Hive monitoring. Tom had less time with her alone these days, and more time with the couple. He could meet new people, or spend time in the animations that Pilot liked so much.

Pilot would stay at least six more months. Wouldn't he?

"Do what you need to do," he said, tightening his chair straps. "I'll be all right."

"Are you sure?"

"I'm number five. We've made it this far, right?"

Pilot nodded from his chair, watching the timeline. One minute to go.

A loud noise like a slamming door vibrated through the Con.

"What was that?"

Pilot enlarged the holo-diagram. A network of green arteries began turning red, segment by segment. "The hydraulic systems are isolating and shutting down," he said. "It will keep the fluids from redistributing during the flip, and throwing off the transputer calculations." Pilot frowned at him. "If you'd read your flight manual more closely, you'd know that."

"I read my sections. I don't have much to do until the flip is complete. And then all we have to do is resequence the peristaltic systems."

"Ready?"

Tom nodded and turned to his console. Safety protocols required that two pilots be present for the midpoint flip. He looked out at the stationary stars.

"Ready," Tom said, entering his code as Pilot tapped his own into the console.

Ahead, the stars began to move.

Tom felt the gentle nudge of the chair under him. On the holo-diagram, little flares appeared on the fore and aft thruster rings, and the model began to move, tracing a spiral dictated by the precession of the still-rotating wheels. The flares, at right angles to the motion, circled around the thruster rings in a complicated burn pattern, keeping the movement slow and orderly, until the ship axis came to rest along the original flight path.

The stars were once again fixed in place, but they were different, an alien view.

"That doesn't look right," Tom said.

"You'll have to get used to it. Let's get the systems back online so we can restart the fountain."

Two yellow areas appeared in the model. Both were failed solenoids. Tom swapped them out remotely, while Pilot watched.

"I guess you *did* do your homework," the older man said. The systems network showed green throughout the length of the ship.

They ran final diagnostics on the fountain drive before igniting it. Tom watched the purple and blue plume grow in front of the ship. Four and a half generations of constant thrust would slow the ship to within capture velocity of the new system. Their new home.

Tom glanced at Crèche control in the corner of his station. In a few years, he would select his successor, shepherd him through an emotional childhood, help the kid grow into a capable pilot so he could do the same for another. Tom would be Pilot then, giving up his name. And what else?

"Why do we have to take everyone there? Why can't we take eggs and hatch them just before arrival?"

"The colony needs specific skills to survive and grow."

"Why can't they all learn in stim? We do."

"The ship would be far too large in cross-section, and too complicated with that many stim systems to support. Besides, living quarters for eighteen hundred children would be impossible."

"I'm just a variable, is that it?"

Pilot looked away, his lips pressed flat together. He shook his head.

"What if I don't want to do this? What if I want something different?"

"You have the stars," Pilot said, indicating the view.

"What if I want to be me?"

"You're not?" Pilot raised an eyebrow.

"I don't know, Pilot. I don't think I was meant for this."

Tom was used to solitude. Years of farming, of calm preparation for minor course corrections, and still not time enough to sort things out. He understood Pilot's attachment to Widget. It had been seven years since Pilot had gone into hibernation, and two years since Mark had started showing up.

But it wasn't Mark. The kid was a projection of the ship, a flat and lifeless deception. Mark was just a ploy to make Tom choose his replacement and perpetuate this puppet life. It had to be his choice, not some damned plan. Tom had tried everything he could to eliminate those unwanted visitations, but he found it impossible to terminate Mark. Instead, he learned to ignore them.

Then he awoke in total darkness. There was no light under the door, no warm glow from the wall. He was cold, despite the blankets. Widget was huddled against him, and protested when he sat up.

"Lights," he called. "Screen, on." Nothing happened.

He stood and pulled the blanket close around him, then felt for the door, stumbling into the corridor toward one of the view ports. Condensation had formed, making the stars beyond glitter and sparkle as he approached. Tom wiped the port with the blanket's edge, smearing the starlight. He tried to make out the shadow of the ship out there, but all the running lights had been turned off.

A flash caught his eye up the hall. A soft, flickering orange glow

streamed out of the stim room onto the carpet, beckoning. Tom made his way up the curving corridor, past two glistening view ports, and entered the warm room. He ignored the slight disorientation as the stimulator took over.

Mark was sitting next to a campfire, poking it with a stick. Glowing ashes floated upward into the star freckled sky.

"Got a bit cold in here, so I had to light a fire," Mark said, adding a drawl to his voice.

"What's going on, Mark?"

"I guess the ship just didn't feel like doing what you needed it to do, so it turned off the lights and the heat. You didn't go to the bathroom, did you? They don't work." He laughed, and jabbed the stick into the coals. A fountain of sparks shot skyward.

"Kind of like this fire, ya know?" Mark said. "It sits here burning, keeping us nice and warm. All we have to do is put in a log every now and again. We can even choose when to stick it in, as long as there are coals enough to keep the fire going. But, at some point, Tom, we gotta put our log in there."

"So it's my turn to put a log on the fire, is that it?"

"You still have that leaping quick mind of yours." Mark grinned. "That's good. Take that sky for instance." He waved the stick at the stars. "Those are the stars from your new homeworld. Looks so different, doesn't it? A different Milky Way, no Orion, no Big and Little Dippers. Just that unknown layer of stars. Plenty left to name, plenty constellations to figure out."

"Maybe we shouldn't be going there," Tom said. "Maybe our simple presence there will kill whatever evolutionary progress is already going on."

"Don't you believe in Darwin?" Mark said. "Survival of the fittest, and all that?"

"Look at lemmings," Tom said. "They're successful. But when they exhaust their resources, they control their population and survive. How can you sit there and tell me I have to ante-up so we can deliver the human disease to a new planet, when I don't even know if it's worth it."

"Don't you want to survive? Isn't it better than freezing to death out here?"

"So that's it," Tom said. "A threat? You lured me in here to threaten me. That's just the kind of childish thing I'd expect from you. What are you going to do, kill me and start a new pilot on your own?"

"You know that won't work. Someone has to be there to raise him. You're very important to his life, Tom."

"Me, or another me? Why don't you kill me and resurrect an old Tom to tend him?"

Mark focused his attention on the dying fire, rearranged the logs to rekindle the flame. He resumed poking it with his stick. The smoke shifted with the breeze so that Tom had to move around the campfire.

"Face it," Mark said, at last. "You have no free will. We even tell you where to move by blowing smoke in your face." Mark watched him. "How do you like that?"

Tom burned inside. The one person who had mattered, the one person who he thought he could trust, was no longer there, no longer a person at all. It was the ship speaking, not Mark, not even Mark's consciousness. Here, Tom stood on their turf, acting like a little boy waiting for the next marshmallow, no longer hungry enough to reach out and grab it himself.

"This stim is complete," Tom said through clenched teeth. He walked out into the freezing corridor.

Then he ran. He ran up the hall to cool his head. He ran to pump feeling back into his body. He ran to numb his mind. Around and around, past his quarters, the galley alcove, the library, the gym, the racks and racks of plants and algae tubes, the water reclamation bay, all in darkness except for the dim light streaming through the view ports.

As he passed his room for the third time, he slowed and stopped. He thought of Elaina Shakara and the thousands in storage as he groped in his closet for a flashlight.

He floated past the farm ring before he knew where he was going. The door to the hibernation modules didn't open, so he retrieved the crank and opened it manually. He had expected as much with the systems shut down.

Pale blue light and heat emanated from the hibernation cells. The hum of air handlers made the place seem quiet, as if it was waiting. The ship was keeping the future safe. It was just him they were freezing out.

Tom kept the crank-handle with him, and floated into the cavernous room. Hexagonal transparent cells were stacked from floor to ceiling in a honeycomb, each containing a patient worker-bee. All except for the eight cells lying side-by-side just inside the entrance. The protectors. The pilots guarding the helpless citizens through the extended night journey.

Four of the eight were empty; the contoured bed made for the body of a pilot. All exactly the same. All made for him.

He brought the crank-handle down hard on an empty cell, only scuffing the surface. The movement sent him flying away, intensifying his frustration. He maneuvered himself behind Pilot's head, and looked at the control mechanisms embedded in the small door.

Tom braced his legs and swung the lever as hard as he could, breaking the seal. Sweet nutrient gas flooded into the room.

Tom pulled out the stiff, alabaster body of his predecessor, and slammed its head against the wall of cells behind him, hearing Pilot's neck shatter with a wet, snapping sound. He did the same with the other three pilots, slamming them into the wall of cells until their necks, too, were shapeless masses.

Thick drops of blood floated from noses into the blue light. Strings of black pearls glinted while floating around their hosts. He shoved the bodies away from him as he howled into the hive. Echoes came back from beyond the dead pilots as if they had screamed.

He flew down a comb of cells, searching for her, driven to show her his last act of free will, and to exact his revenge. But, most of all, he wanted to watch her face as she realized her fate in that private, last instant.

He realized why none of the cells had nameplates.

Frustration seized him, and he opened door after door, methodically lib-

erating the bodies, sifting through them cell by cell, dizzy with the nutrient gas and frightened by the easy abandon of his actions.

At the end of the aisle, he looked back. The air was thick with slowly colliding bodies, a gentle Brownian motion of souls. As he pushed off to go around and start down the next aisle, he slammed into the chest of a corpse. Its arms folded around Tom as he floated toward the bulkhead, and he panicked.

Tom batted at the dead body, pushing it away. Tiny blood spheres arced around them as the body moved into a shaft of light. Tom recognized himself, and stared at the dead pilot. The eyes had opened. The ghostly white face would never cry for him again, the arms could no longer comfort him. He saw the future drift away, spinning into shadow. The other Toms were near, haunting him with sad, unfocused gazes.

They all looked the same.

The thought collapsed him, and he curled up, a crying fetus in a cavernous womb, born of a new desire to carry on without the means to do it. Shame, and the impossible weight of the floating dead, crushed around him. He knew himself, and his calling, but it seemed far too late to salvage anything.

He returned to the stim chamber calling out for Mark, needing to talk. The room was empty. He slid down the cold wall, hugging his knees, and measured out the night in sobs.

He was damp and nauseated when he awoke. The hall and rooms were warm and illuminated, but it didn't matter. He wallowed in his feelings for days, until he couldn't stand it any longer, and went back to the hibernation bay to salvage what he could.

Along the way, he noticed things; dents in panels, broken light covers. Some were obviously deliberate, the violence undeniable. It chilled him.

The door to the bay was shut. As it opened, he held his breath against the rotting horror inside.

There were scuff marks on some of the tubes, but the pilots lay undisturbed in their cells. There was no smell. No one had died.

The ship had never let him leave stim.

He was getting older. Tom could feel it in the way he ran, the slight congestion, the way his muscles felt stringy and too lean. It only made him run harder, to push himself through the aches, and make him forget the horror that had left him feeling dirty and used. He felt sane when running.

Yet, every year he waited meant one more year before he could hibernate. How old would he feel then? Who would take care of him? Widget would die next year, and he didn't want to be alone. He did need someone to love and care for. Why not himself?

Tom sprinted another lap and slowed for a recovery period. He had been running for thirty-eight minutes. Sweat beaded his forehead and dampened his hair, and the happy rhythm of running made him laugh.

"Tom?" a soft, matronly voice called out, slowing him.

He had never been interrupted before. He would ignore it until he was finished. Anyway, he didn't recognize the voice.

"Tom? Please stop and go to the nearest panel."

He kept running. A woman's face showed on the panels as he passed them. She looked old, with gray and black hair matted into tubes that were tied behind her head.

"I have something to show you," she said, as he jogged by.

At the next panel she tried to wave him in. "Something you need to see."

He went on.

"Something unplanned."

He stopped running and walked. His heart pounded in his chest as he slowed his breathing. "Who are you?" he said, approaching the next panel.

She waited until he could see her, and smiled in greeting. "I'm Elaina Shakara, Tom. Nice to see you again. You were still in school the last time we met."

He had wished that she could be his grandmother back then. But that had been long ago.

"I remember. What do you want?" It wasn't her. He knew that much. There were still too many things he had to think through.

"There is something ahead. Something unexpected in our path."

"Is this another trick?"

She shook her head. "No, Tom. We have started braking both rings to slow them down in the event you require a course modification."

"You're serious?"

She nodded. "This is what the sensor echoes have found." A visual image of stars appeared on the panel. Near the center of the panel, pinpoints of light seemed to shift in intensity.

"What is it?"

"Something blocking the light."

"Do you have a return image?"

An overlay of their course appeared and intersected the edge of a large cloud-like cluster.

Elaina continued. "You can see that the mass is roughly spherical in shape, with some interesting lobes. We need more analysis, but the fountain drive is partially obscuring the data."

"How long until we reach the edge of the cloud?"

"Approximately seventy-nine point four hours. We're not sure how fast the cloud is moving. We need more data."

"What if we shut down the drive to scan it?"

"Seventy-five point one hours."

"How about the tethered arrays?" Tom asked, thinking of the three antenna-receivers that could be ejected from the central axis. They were designed specifically for peering around the ion fountain, and formed an isosceles triangle five hundred meters on an edge when deployed. They were only available for short intervals, however, as the arrays collapsed inward like an umbrella as the ship slowed. They had to be reeled in long before they burned up in the ion stream.

"The array is only effective for fifteen minutes at a time. We have only just estimated the return-signal arrival, and are coordinating deployment to maximize capture."

"Elaina? Are you worried about colliding with this thing?"

"That is a possibility. We cannot tell its composition or density at this moment. We need more data. We need proximity."

Proximity? No. They needed distance. The ion fountain itself would take care of micro dust, and the dense fountain shielding would deflect fine particles up to a point, as long as there weren't many. Anything larger at these speeds could be devastating.

Deep space was supposed to be empty.

"Meet me in Con," he said, as he started his climb toward the hub.

Passing the farm hub, Tom thought of the pending harvest. A minor course correction would be fine, they could do that at one-quarter G. Anything more drastic would require stopping the wheels, and for that they would have to drain the unsealed tanks, apply mesh plant restraints, and hope for the best.

There might not be time for either, he thought, passing the entrance to the hives. Would it be better to wake another pilot or two? That would take days and Tom wasn't sure if there was time for them to effectively acclimate after being in hibernation. Again, there was no time.

He was it, then, along with the ship.

The Con doors opened long before he got there. He pulled himself along as fast as he dared, using his hands in coordination with his feet as if he was thirteen again and going for speed. He could tell the difference since the flip, the slight pull forward was now a gentle tug from behind.

He tackled the back of his chair to stop himself. He'd be sore later.

Strapping himself in, he took in the ship's status: fountain drive operating normally at 85 percent, a tight plume, hydraulic and electrical systems green throughout, the farm and habitat rings spun blue at less than half-gravity and slowing.

Where was Elaina? The panel was empty.

He called to her and watched the simulated deployment of the arrays from a point between the ion fountain shielding and the farm ring. Data was incoming.

To the right of the ship holo, a new holo cube appeared. Gray specks began to populate its inner space. Over a few minutes they formed an ovoid shape like an inflated glove with multiple stubs, mostly in one hemisphere.

The specks stopped. Tom saw the arrays being reeled in at a sharp angle, closer to the plume than he'd like. They had to shut the drive down. At least for a while. Otherwise they'd never get the data they needed.

"Elaina?"

Tom brought up the drive control console and began the shutdown sequence. He checked that the arrays had been stowed and blanked the tower assemblies, then shut down most power grids. The corridor behind him went dark. The window views before him blanked. Tom cut ion ignition.

He waited until they had passed through the plume's ion residuals before running the diagnostics.

Elaina Shakara appeared on-panel.

"Where've you been?"

"We needed to process the array data," she said. Elaina cocked her head, as if listening. "Diagnostics complete. You can reinitialize the tower assemblies while I deploy the arrays."

Tom worked in silence, watching the towers come back online. He replaced his window view with a view aft from one of the towers. The arrays were moving toward the end of their tethers on his right and left. The readout indicated that they were already scanning. Below him, along the central shaft, the two gravity wheels spun in sync around the axis. The habitat windows were dark, reminding him to restore power.

The arrays reached their apexes, still scanning while waiting for a return signal, and passively absorbing what they could.

"How long do the sensors need?" he asked.

"More time is better," Elaina said.

"We'll have more time if the drive is engaged. A few extra hours, anyway."

"Data is important."

The arrays were stable and stationary. Tom busied himself checking for any electrostatic damage, then restoring power. When there was nothing left to do, he watched the stars. The cloud ahead of them remained dark, invisible to the naked eye.

"Show me what you've got," he said.

The ovoid shape in the holo cube became a semi-transparent shell with a few clusters of internal particles.

"So it's hollow?"

"That is essentially correct," Elaina said.

"That doesn't help. We still have to avoid it. The boundaries look pretty dense."

"Particle sizes range from two point four meters down into the submicron as far as we can measure. The shell appears to be approximately one hundred and eighty to three hundred and twenty meters in thickness. There appears to be some weak alpha particle emission, but the source and size is non-specific, so an age cannot yet be calculated."

Tom stared at the image. "What is it?" he said.

"Spectral analysis indicates high quantities of silica, minerals, and metals. Very much like an S classification asteroid in composition, though there are significant amounts of organics and water vapor."

Specks in the holo ovoid turned green and blue.

"What else?"

"The shell is expanding and traveling obliquely to our course."

"Show me."

A vector appeared drawn from the center of the shell. The ship's path appeared, piercing the edge of one of the lobes.

"Elaina, is this with the drive off?"

"That is correct."

"Show me with the drive engaged."

The path shifted to the edge of the cloud.

"That takes us through the shell's edge. Would it be safer to punch through twice than ride the edge?"

"The probability of impact is lower, yes," Elaina said. "And we would be able to collect data more safely."

"Focus on where we are likely to penetrate. Do the size of the particles at those coordinates pose a risk?"

"Yes."

Tom began retracting the arrays, then initiated the re-ignition sequence. Elaina frowned.

"What's so damned important about this cloud of yours, Elaina?"

"It's unusual."

"Great. Send the data home. Let them worry about it. I need to worry about the safety of this ship."

"We've been transmitting a continuous data stream since contact," Elaina said, as the arrays slipped into their cradles and the drive ignited.

The plume grew in length and temperature.

"I'm taking her to 100 percent," he said, making the adjustments. The plume expanded, became light purple in the holo.

"Show me now," he said. "Is this enough?"

The trajectory appeared to miss the shell.

"Are the edges of this thing well-defined and sharp or are they fuzzy? Are we going to miss it?"

"This burn, if continued, will take the ship 850 meters outside the shell perimeter."

Tom relaxed into the chair. He had been straining against the straps, and hadn't noticed.

"Not much margin for error," he said to the holo. If they had come through a few days later, they might never have seen the thing. How many of these things were out there?

"Are you certain we won't hit anything that close?"

"Yes."

"Why?"

"The shell appears to be the result of an explosion internal to the mass. The outer edges are defined by larger particles, but they appear to be of uniform size, and so define a regular outer surface that is expanding."

"Elaina, do you have any idea how this thing got out here?"

"No."

In stim, Tom relaxed by the pond and stared into green water. He hefted a rock the size and shape of a small potato, rolled it over in his hand.

"What would it take for you to explode?" he asked the rock, then stood and tossed it high out over the pond. It made a satisfying plunk, and the ripples moved fast toward him.

Tom strapped himself in. They were approaching the closest edge.

"Elaina?"

"I'm here, Tom," she said, appearing on-panel.

Out in the darkness, stars winked out to his left. The whole left side of his view was dark, as if some giant monster was passing in the night.

On the status holo, the three arrays had completed retraction and were preparing to eject again. Active radar showed them against a huge wall that curved away from them as far as the display allowed.

The drive was running at 98 percent.

"Damn," he said, and red-lined the drive past 100 percent. "Elaina, what's going on? I left this at full."

"We throttled down to get closer to the anomaly," she said.

"What do you mean you throttled down? How close are we?"

"Three hundred meters."

"You, of all people, should be keeping this ship safe," he yelled. "Unless there's more to this. You aren't Elaina. I keep forgetting. But you want me to forget, don't you?"

She said nothing. The arrays deployed.

"I want close, high energy scans directed ahead. Show me everything out there in detail."

Elaina nodded. Tom could hear beads in her hair click against each other. A waste of computing power. Vanity?

"What is so important about this exploded rock that you can jeopardize this mission?" he demanded, watching the wall approach on the scan. He glanced at her image, tight-lipped on the panel, and he understood. "You think this was a ship of some sort, don't you?"

Tom called up the ship's trajectory past the wall of debris. He overlaid a scale model of their ship. One sensor array appeared to be skimming through the wall.

"Damn you!"

Tom entered the emergency retract command, then remembered there were external lights designed for docking. He switched them all on.

The darkness was full of shapes sparkling like shards of glass. A school of giant, flashing fish hungry for them. He followed the tether out into the shell surface, the array flying through shapes.

The array shattered on impact with one. Shards of light flashed silently as the tether slowed and caught.

Tom ejected the array assembly and the rock dragged it away.

"What next?" he said to the ship. "Are you going to lasso God?"

He watched the sparkling wall slip by, and hoped the path was clear ahead of them, though the sensors assured him of this.

The wall began to recede. Slowly at first. Then it quickly arced away. They passed back into open space.

Elaina had left him. Someone would find it again, now that they knew it was there. It would take a proper mission to explore it fully, confirm their suspicion.

He looked at the holo. The thing, rock or ship, had exploded from within. Tom didn't want to know why. He didn't want to think about it.

He turned off the external lights. Only the running lights remained, blinking out there in the empty night as far as he could see.

He turned those off as well, and watched the steady faint glow beyond the drive shielding. The mandala of stars emptied his mind, and he floated within the loose restraining belts of the pilot's chair.

"I thought I'd find you here," Mark said, appearing on the panel. "I just wanted to say thanks."

"It's my job. It's what I do," Tom said.

"You do it well."

"Don't patronize me, Mark," he warned. "It's unbecoming in a fifteen-year-old."

"Meet me in stim?"

Tom was silent. Empty. He looked for motion out there, his old habit.

"Please?" Mark pleaded.

Tom clenched his teeth, wondering if he should gamble against his newfound confidence.

"Okay," he said, barely audible as he freed himself of the chair restraints.

Mark turned and walked off-screen before the panel went black. Tom sighed and pushed free of the chair. As he floated down the corridor to the habitat hub, he thought about growing up in stim, his house, his friends, and his school, the Academy.

When he was young, he could easily suspend disbelief and be there, light years away in space and time. Now, thinking of Mark's death, and the deception, he looked upon the stim as a sinister companion, bending reality to ensure the safety of the mission. Not even that was certain, given recent evidence. He shuddered as he climbed down.

He closed his eyes as he entered stim, trying to ignore the tugs in his mind.

The smell of dry grass, tall and dusty, mixed with the syrupy smells of pine and honeysuckle. A hot midsummer's sun beat down on him. A lone grasshopper flew away, sounding like a toy propeller on a balsawood plane. From woods across the field came the hollow call of a dove, answered somewhere by a bobwhite. The years melted away, and he smelled and heard the things he thought he had cherished most. He was barefoot in cool grass, and he knew without opening his eyes that he was tanned and golden-haired, and back in the summer of his thirteenth year.

"Mark?" he whispered, opening his eyes.

He was thrown to the ground before he could turn. He twisted around, and the two boys tumbled and grappled through the grass until they were by the river, sweating and out of breath.

Mark lay on his back in grass-stained shorts, his red hair blazing above dark freckles on pink skin. His right knee and elbow sported large scabs, and the rest of him was covered with scratches in various stages of healing. Tom's arms and legs were no better.

"How'd you do this?" Tom said, looking at himself. "I'm actually thirteen again?"

"For now," Mark said, sitting cross-legged a few feet away. He pulled up a stalk of grass and stuck the sweet end in his mouth.

"How old are you?"

"Still fifteen. I don't change. I'm as far as I ever got."

"You're older than me."

"Yep." Mark glanced at the sky. "This is for you, not me. You can be fifteen if you like, but I remember this was your favorite summer after we met. I wanted you to have it one last time."

"What do you mean?" Tom lay down on his side, propping his head up.

Without thinking, he began working the fingers of his free hand into the cool dirt.

Mark ignored the question. "Why did you try to terminate me so many times?"

"You weren't you anymore. Maybe I needed to figure out how to live with myself. Maybe I was the only one I could trust not to leave me." Tom stopped digging. "Does it hurt you that I tried?"

"No. You're supposed to. I'm proud that you moved on. I would have held you back, you know?" Mark said, and blushed. "I was too in love and too jealous of you. You couldn't have worked out what you did if I was around. You wouldn't be the person you became, our pilot. That's pretty clear, isn't it?"

"I guess." Tom pulled his hand out of the ground and flicked the dirt from his fingers. He sat up cross-legged and started digging again. Cool roots tickled the back of his hand. "So, why are we here?"

"You feel dead-ended, Tom. Like you don't matter. Life seems futile, doesn't it?"

Tom nodded.

Mark continued, "I wanted to tell you a secret, and to remind you of something. And it's better if you hear it in this frame of mind than the one you've been carrying around lately."

Mark moved close and pulled Tom's dirty hands out of the ground, gently wiping off the dirt.

"You are special," he said, watching Tom's eyes. "Unique. And I can prove it. It isn't just this ship you signed on to pilot. You've been piloting ships like these for the last thousand years. We were the sixty-fifth ship launched toward one of twelve star systems we now inhabit. Some close stars needed only two or three pilots to get there. Some were farther away, needing as many as eighteen of you. And now, for the first time, we suspect we aren't alone. Thanks to you."

Tom looked down at the hole he had dug, trying to absorb what Mark was saying.

"That's right," Mark said, holding tight. "As far as we know, not a single ship has been lost to pilot problems. Each of you goes through continuous soul searching all your life. It's part of the process, and not just your process."

Mark sat back on his heels and said, "You're still at a point where you're lost in life's questions, focusing on your own self-doubts. Numb, because you haven't grasped all the answers. You feel like you are living someone else's plan. One that we gave you. Forced on you."

Tom nodded and looked away.

"You aren't," Mark said.

"What do you mean?"

"You gave this to yourself, Tom. Your original set up the Stimulator to give you the optimum environment, the same unrestricted and nurturing one he had growing up. We only help you when you get stuck. It's you who does the growing. In the end, each of you finds your own way. Sometimes life's just a matter of perspective, buddy-boy."

Mark let go of Tom's hands. "Pilot was a great guy, wasn't he? Do you miss him?"

January 2006

"Yeah. Sometimes," Tom said.

"Remember how you thought he went into hibernation a year early?"

Tom nodded.

Mark shook his head. "He went in four years late, Tom. All of you have the same beginnings, but each of you handles your life a little differently. Each one is unique, no matter what we do. And you always make it any-way."

Mark stretched out his arms, grinning, taking in the world around them. "Some of you even make me tell you all this."

Mark reached to tickle him, but Tom squirmed away, giggling. They sat together while the afternoon wore on, talking some, thinking some, and enjoying a long forgotten closeness.

"It's good to have this time with you, Mark. I've missed you, you know? The real you. The you I knew."

"Yep. I know."

"I always felt exactly right when I was with you," Tom said. "You, and Pilot."

"We know."

"God, I hate it when you say that!" Tom threw a fistful of grass in Mark's face, starting another tumble that ended in a tight embrace.

"Feel better?" Mark sat back and chewed on a piece of grass.

Tom nodded, and went back to digging in the cool, moist earth.

"So, Mark. What were you going to remind me about?"

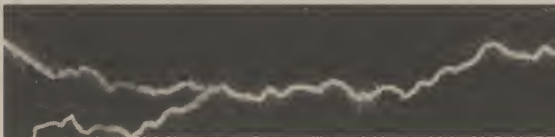
A sharp pain distracted Tom as something underground clamped down hard on his finger. Fighting his instincts, he reached deeper to grab the crawfish. With a loud whoop of delight, he dragged out the fighting crustacean for Mark to see.

But Mark was gone. ○

TESLA'S PIGEON

*Hotel New Yorker, NYC,
January 1937*

From his black mohair couch Tesla regards a spectacle of sparks igniting, cracking apart the night. Reminders of the bedlam of charged particles, of metal coils, his failed tower in Wardencliff. The voltages as glorious flashes revealing for an instant a white bird Tesla holds dear.



He coos to appease her
ruffled feathers, caressing
brown-tipped wings.
Beloved, injured companion
of a pauper-millionaire
bathed by an atmosphere afire.
Tesla deduces distance and strength
between strikes that erupt
the pitch-dark dynamo. Its power
could dwarf his machines that
harness Niagara's falls. Turbines,
rotating magnetic fields, turn
hallucinations for a dapper,
sleepless poet of science
who on morning walks
feeds hungry pigeons that spiral
about his coat and high-laced shoes.
Tesla mumbles Serbian verses
about lightning and birds
in cages, consumed by reveries
of a peace beam to end all
wars. A tumultuous squall pelts
the windows. Then nothing. The white
pigeon who comes at his call
is dying. She nips Tesla's cuffs.
The warmth of her wings
settles him while he croons
devotedly, wedded to her,
each glimmer of breath illuminating
new inventions that rival
the retreating electric storm.

—James Gurley



Carol Emshwiller grew up in France and Ann Arbor, Michigan. "I was a dreadful student, just squeaking by with Cs and a few Ds. That was because of (well, partly) going back and forth from France to here, I was hopelessly confused. At age eleven I gave up." Through the middle part of her life, she was a housewife with three children. "I had to struggle for every little moment of writing time I could get. Thank goodness I lived long enough to have all the time I want now." Carol's new short story collection, *I Live with You* is out from Tachyon Publications, and her young adult novel, *Mister Boots*, was recently published by Viking. Small Beer Press has reissued *Carmen Dog*, and *The Mount* is to be reissued as a young adult novel from Firebird at Putnam/Penguin. In her first story for *Asimov's*, she takes a look at what it means to be an alien stranded on the . . .

WORLD OF NO RETURN

Carol Emshwiller

Lost. It's what I want and wish I was again. Home is . . . used to be . . . wherever I was. Wherever I put down my folding cup, wrung out my cap, turned it inside out and used it for a pillow. But that was yesterday.

When I was discovered I panicked. They woke me out of a sound sleep. I fought. First without thinking at all, and then because they could be

muggers, and after that, when I saw they were policemen, I knew I might be kept in one place and have to stay with the natives for longer than I could stand. Someplace with nothing but a little square of sky. And that's how it is.

They gagged me with a dirty rag and duct tape. I suppose I was yelling. They tied my hands behind my back. I couldn't get a handkerchief for my bloody nose. They let me bleed all over my shirt.

I did do damage. I don't know how much but they had bloody noses, too. Maybe a few black eyes.

They washed me, shaved me including my head. I suppose they were worried about lice. I had a mustache. That's gone. I hardly know myself. They did all this with my hands tied behind my back. I calmed myself with breathing. I tried to imagine a sky instead of a ceiling.

I should be glad for the chance to rest, I haven't stopped traveling—even for a day, still I long to be moving. They took, not just the laces, but my shoes. I had added two extra heels on one for my bad foot. I'm lost without those particular shoes. That's not the kind of lost I like to be.

I think I'm the last, though I keep hoping there's others of us hiding out somewhere. Mountains would be the most logical place. I was headed there. Mother put a metal implant (our kind of metal) to identify us under our arms, but did all the mothers do that and was it the same lumpy red spot for all? And how could I ask somebody, "Lift your left arm and let me peer into your armpit?" Even at the beach, I seldom see under anybody's arm.

I blend in. I never do anything that *they* wouldn't do. I presume we all did that.

We hoped for rescue. We waited. At least Mother did. She never belonged. She was never comfortable here. Most of those of her generation waited and kept on acting as tourists until the money ran out. They thought that would be the best way to survive here until rescue. Unfortunately there was no central location. Now the old ones are all dead and most of the younger ones I knew are spread out, who knows where?

I no longer hope. Actually I never really did. I played the game of wanting more than we had here—Mother said we were rich back there—but I knew no other life. Actually no other life than poverty. I was used to it. As long as we had enough to eat, I was happy. Besides, I was born here. This is my land. I never look out at it without a thrill. Even as a child I secretly relished this world. I wondered if I'd leave if we ever were rescued.

Mother said, "We may look like them, but we're not them and don't ever forget it." She said, "Keep wandering, wear tourist's clothes and carry tourist things." She said, "No need to become astronomers since our world is hidden behind the cosmic haze." She said, "Just keep waiting. Don't use the gift, but don't let it die. Don't marry one of them. If you don't marry one of us, it surely will."

I waited. I didn't marry. Now I fear there are no more of us left to marry though one can't be sure, we were spread all over. I think, "We." I always do. And who knows, maybe in some mountain range, some of us might have lasted disguised as campers.

Tourists. Our parents just wanted to see this place for a little while. It was a class in understanding aliens. Mother was one of the guides but empathy was hard for her. She tried but she always hated the natives. That wasn't a problem for us younger ones.

Had I known we'd never be rescued, I'd have mated with one of them in spite of Mother's warnings. She was sure I'd reveal myself in a fit of anger, but I don't think so. (Though considering what I just did, maybe I would have if woken up suddenly.) I could have had a normal native life. Could I have asked one of them to follow me, a bum in a baseball cap and a flowery Hawaiian shirt, with camera, field glasses? Never lost but always lost? (Though I'd have settled down if I'd married.)

After we knew we were abandoned, we went from job to job. Nobody ever got to know us, nor we them. Mother didn't want us to know the natives. She didn't want us contaminated. She said we were born for better things than houses with pictures on the walls and airplanes and malls and coffee shops and grocery stores, little plots of land with flowers in them. . . . Trouble was, that's all we knew.

At first we lived in a camper but then had to sell it. Our father got a broken-down pickup truck and a tent and we went from place to place. My parents looked at everything with the same interest they'd had in the beginning, but they always felt set apart. They didn't want to join this world. They home-schooled us so that we knew more about a distant world and its wars and land masses than we knew of this one.

I tell the police my name is North. Norman North. At the time I was looking out the slit of a window that faces North. I don't carry papers. I don't ever say my real name. I haven't said it in so long I'd have a hard time pronouncing it. My fingerprints are probably in the network, but not for any crime and not, until now, for any violence. I don't know what came over me. I may be too old for this kind of life.

"What were you doing sleeping in somebody's backyard, old timer?" They're sorry they hit me so hard but, after all, I was hitting them.

"You scared an old lady half to death with your snoring. She thought you were a bear."

I know I look more like a bum than I used to: Faded flowery shirt, tan . . . used to be tan pants, used to be fancy shoes with raised heel on left foot.

"Do you have a place to live?"

"I want to get up into the mountains."

"Do you have a place to go?"

"I know people camping up there."

"Who."

"Family. More of us Norths."

"You don't have any camping gear. And look at your shoes. You'll need boots."

And so forth.

I ask, "Am I in for vagrancy?"

"We're going to keep you for a day or two."

When I say, "But I'm a tourist," they laugh.

They not only don't believe me, they don't trust me either. They've left

the handcuffs on all this time. I don't blame them. One of the police who talks to me has a swollen jaw. I'm lucky he didn't try to get even as they questioned me.

Finally they take off the handcuffs and leave me be. I curl up on the bench. There's a dirty blanket. I don't mind dirt as long as it's our dirt. This is theirs. Smells bitter—as they all do. Their smells aren't like ours. I wrap up in it anyway.

I think of our kind of music. My mother's songs in our language. What little I knew of my language I've forgotten except for the words she made us memorize from the beginning. I still remember what they mean: "We are the people. We are the tourists left here in hundred eighty-nine."

At first we tried to stay in our travel groups, but that got to be too hard when the money ran out and each had a different idea of what the proper thing to do was. That was in the early days. My sister and I were toddlers. Our kind always has twins. A boy and a girl. If stuck, as we are here, with no other mate, we're supposed to mate with our sister. But she was taken as a wife long ago by one of our others. Mother thought that was best, and that I should find myself another from our groups.

So now I sing. Hum. Remember my dead. Wonder if my sister's still alive. I ask for paper and pencil. They say yes, I wait, but they don't bring any. I suppose I don't deserve it any more than I deserve better meals.

After a day or two locked up for vagrancy, I'm usually taken to the edge of town and watched as I walk away, but this time I'm kept. I suppose I'm considered dangerous. I find a place on the side of the bench to scratch off the days. My fingernails are harder and stronger than theirs.

I wonder if my camera, jacket and cap, and my extra shirt are still under that bush on the edge of town or have they brought all that here? If I behave myself will I get them back when . . . if, that is, they let me go?

For somebody always on the move, staying still four days is more than I can stand. I always walk as fast as my bad foot allows. Here, I walk to and fro all day. I didn't at first. I lay on the bench until I realized that wasn't doing anything for my depression. Not that depression isn't my usual state. Moving makes me feel like myself. Being a tourist has become my nature.

I yearn for the mountains, not for themselves or their beauty, though that, too, but for the high hidden valleys where you could hide a whole town. (Some say Vilcabamba was never found.) My people would pick a beautiful spot. They loved how beautiful this land was. Before they knew they were stranded here, they talked of wanting to stay forever.

I'm going to get out by any way I can though do I still have the gift if never practiced? Considering none of us were ever allowed to use it, I doubt if we could anymore. Our parents always told us we should die before we revealed ourselves because that was a promise they had made before they signed on for the trip. Yet it seems to me some of the creatures here have that same talent. Or so they say.

But we hardly need it. Here on this world with less gravity, we're

stronger. I wonder how many I fought that night? I almost won. We haven't needed our "save yourself" gift that I know of.

There's one of the guards more sympathetic than the others. He shared his sandwich and his coffee with me.

His name is Smith so they call him Jones and Jonesy. I like their sense of play. I call, "Jonesy."

"You think I've got nothing to do but talk to you? I got paperwork up to here."

"I could help if I had some paper."

"I don't think the chief would want me to give you any. You might kill yourself with the pencil. You rest up. You need to put on a little fat."

"Are they ever going to let me out? You must admit the food isn't the greatest."

"You gave six men a hard time. Now how did an old geezer like you do that?"

"Indeed there did seem a lot of them. But I didn't win. I'm here, aren't I?"

"What were you in your day, a boxer? You don't look it. You look more like a librarian."

"Something like that."

"Well, which?"

What to say? I haven't been anything.

"Try to hold out for another day or two. How about I bring you fried chicken?"

So I wait. I pace. Four steps one way, four steps the other. I imagine weeds and flowers along the edge of a road. I mark off another day. Jonesy must have said something because the food gets better.

At night everything is lit up bright as day. Another reason to get out of here. Plus there are mice. Bold as could be. I try not to spill anything but they're here anyway. If I did have paper or a book they'd be chewing on that. I suppose they'd even eat a pencil.

I hold one of the mice in my stare. The three Fs: Flight, Fight, or Freeze. He doesn't move. I count to twenty, then I let him go. Or maybe he held *me* and let *me* go. Or maybe we just stared at each other, one creature to another, and then decided that was enough.

I'm to go in front of a judge for assault and vagrancy and goodness knows what else. Finally, Jonesy takes me for a shower. (I've been washing in a basin for five days.) He sits at the door. He always has his pistol on his hip. I want out of here before they dress me in a red jumpsuit and take me off to a bigger, better prison. This is about the biggest jail I can stand.

I washed my flowery shirt and chinos, and I have my shoes back. The day of my trial there's only three men to help me into the van. I won't need to test "The Look." My strength is why I've never had the need to try it.

I lock them in the van, drive a couple of blocks, turn off on a side street

and ditch the van. I walk a few blocks and steal a car. Drive two blocks and pick up another. Walk again. It won't take the owners long to find them.

I'm heading to the place where they first found me. I want to see if they left any of my things there. It's on the edge of town and on the road to the mountains. Not hard to find. It's a messy place, that's why I chose it. And next door to other messy places. The house needs paint (as the neighboring houses do) and the porch roof is about to fall down. Best of all it's a big yard full of bushes and weeds—rabbit brush, black brush, baby tumbleweed, and the big bushy sage that I slept under. If only I didn't snore like a bear.

I go straight to the sage and check under it. My red jacket with the white stripe along the sleeves is gone and my extra shirt. My little kit with comb and razor, gone. Why didn't they give it back to me in jail? I'll look a mess without it.

I crawl out from under and stand up. I hear a sharp intake of breath. The old woman I scared . . . I presume it's the same one . . . is on the porch looking right at me.

I wonder that she's outside in this heat—someone as old as she looks to be should be inside keeping cool. I can see a swamp cooler on her roof but it's not running. The folks of this planet can't take the heat the way we can.

She sits back down with a plop and then sags over as if in a faint. I should see if she's all right. I should urge her to go inside. But I don't want to scare her again. Of course my head is shaved and my little black mustache gone. Even if she had seen me hauled away she wouldn't recognize me, but I'd scare her. Maybe all the more with this shaved head.

I go up to the porch slowly. I can think of some excuse. I could pretend to be selling some religion or other. They're all into religion especially out in the country and especially those of her age.

I go up the porch steps. I say, "Madam?" but I know that's wrong for around here. I say, "Missus?" Then (oh yes), Ma'am. "Ma'am? Are you all right?"

She isn't. I come closer. I touch her shoulder. Gentle as my touch is, she collapses. I feel her pulse. I lean to feel her breath. She's alive.

I pick her up and carry her inside. She's small and light, even for one of them. Hunched over from osteoporosis. It's a wonder she didn't break something from her fall. Lucky it was more of a sagging down slowly.

I put her on the couch. The cushion is already lying sideways with a head shaped dent as if she had been napping there not so long ago.

I start the cooler. Then I look for the kitchen so as to find a towel to wet. I also get her a glass of water. Then it occurs to me that maybe I shouldn't wake her up just yet. I put the water beside her and the wet cloth on her head. Then I go to look around. I need men's clothes. And a razor.

The house is much nicer inside than I expected. Not clean, but nice things. And, in the kitchen, all the latest appliances. No sign of a man, though. If a man had been here that first time she'd not have been so frightened and it would have been the man who found me. Come out with a rifle, no doubt, and shot me on the spot.

Still there might have been a husband. She may have men's clothes. Sometimes they keep everything, though sometimes they get rid of everything in a hurry before they have a chance to think. Mother was like them in that. She got rid of all there was of Dad (not much) and then was sorry later. As was I.

The bedroom is small and cramped, the bed unmade. I suppose she doesn't have much energy for cleaning anymore. There's the picture of a man on the dresser but no men's clothes. She must be one who threw away all her husband's things right away. But when I check more carefully, I find a man's work shirt in with her things. She's probably been wearing it herself.

It's a blue farmer shirt. I take off my flowery shirt and put it on. The buttons are a little stressed across my barrel chest and the sleeves are a little short but I roll them up so it doesn't matter. It's so old it'll tear easily. Kind of like my old Hawaiian shirts.

In the bathroom I find pink ladies' razors. I put a few in my pocket.

As I come back to check on the old lady, I see a man's jacket hanging by the front door. Frayed corduroy, out at the elbows. I've hardly seen a more ugly one. Has she been wearing that, too?

There's a whole array of hats on the rifle rack next to the door. Except for one twenty-two at the top, the rack holds only canes and hats. I find a floppy soft one with a brim I can pull close over my face. I'm going to stay away from baseball caps from now on. I'll be a camper. One of those canes will be nice, too.

It's a very small house. Even so, I wonder if I can hide here a few days while the police are running around looking for me. Let the chase simmer down until they think I'm long gone.

Just as I come back to the living room, the telephone rings. I step behind the door. There's an answering machine. It's a woman's voice. "Mother, I can't come up this weekend. Mickey has an ear thing. The same as he had last time." But then the old woman staggers up, holds on to the furniture. Says, "Oops," as she plops into the chair by the phone. Her hello is breathless.

Now that she answered, I can only hear her side of the conversation. "I'm fine. I had a dizzy spell but I'm all right. I lay down on the couch and I'm much better now. I'm going to make myself a cup of tea. I'll stay in here by the cooler. Yes, Rosemary comes on Mondays and the police are checking with me every day . . . ever since they found that man in the bushes."

Doesn't she remember seeing me? Or maybe she doesn't want to mention it for fear of worrying her daughter.

I go to the kitchen and put the kettle on. I start back into the hallway, but she's wobbling there, one hand on the wall. She goes to lock the front door. She mutters to herself. "She lets him eat anything he wants. He's not getting enough vitamins. But I've got to keep my mouth shut." She goes down the hall to the back door and locks it, too.

I stand still by the coat at the front door. She doesn't see me. I don't think her eyes are very good.

When she comes into the kitchen and sees the kettle already boiling,

she says, "I'm even more addled than I thought." Perfect. I'll hide here a few days. I don't think she'll notice and even if she did she'd think she was mistaken.

She gets out a saucer, pours in cream and puts it on the floor. I'm thinking, addled indeed, but then she calls, "Come on kitty, kitty, kitty." It doesn't come. I'm not sure if there is a cat or if there just used to be.

She putters around for a few minutes and I think she's forgotten about the tea. But no, here comes the teacup. She hesitates, puts it back and picks another, puts that back, too, finally settles for the third. These people care about little things of beauty.

I've never lived with any of them. In fact nobody in my family wanted to get that close. Mother was afraid we'd get to be like them, and maybe not mind being here. She wanted us to yearn for the home planet as much as she did. All her life here was nothing but yearning to be some place else. I don't know if all that yearning was worth it. She died looking out over a wheat field. She said, "What is all that gold?"

"Wheat," I said.

"Just like the rivers of home," she said. "Have we gone home?"

I didn't know whether to tell the truth.

"Oh, Lorpas, tell me, are we home at last?"

"Yes, yes."

I don't know if she believed me or not.

The old lady sits with her tea and turns on the radio. That's nice for me. I've hardly ever heard their radio or television. Another thing Mother didn't want us to get to like. Before we were born and they were stuck here, Dad said, "We watched and listened to everything we could and raved about how funny and fun these people were. How especially funny they were when they acted almost just like us." But they didn't want us children turning into them. Without home planet experiences they were worried. That was a mistake. It kept us ignorant of everybody and everything.

So now I stand still and listen. I hear news but nothing about me having escaped. I hear afternoon thunder storms are predicted for the next few days. Yes, I'll stay until the weather gets better.

She keeps muttering to herself. Mostly I can't hear but I do hear: "For Heaven's sake," and, "Good grief." Then, "More afternoons of rain. What else is new?" (Odd for the desert, but it's been raining every afternoon.) She says, "They say doing the crossword puzzle keeps your brains going." Why did she say that? She's not doing a crossword. Then, "Well, lots more than just brains will be lost one of these days. The mountains, lost a long time ago. Bert's house. Rosemary. I wish Mother and Dad could have seen the things we have now. They thought things were amazing back in their day. Wish everybody lived together in one village like they used to a couple of hundred years ago. But I always think that same thought. Wonder what use it is thinking the same thing over and over." Meanwhile the news is going on and on and she's not listening.

I know how she feels. I feel my age and I have that same wish, too, to be with others like me.

Somebody knocks. She wobbles to the door, hanging on to the furniture and walls. She says "Oops" several times. She left the fire on under the kettle. I don't see how she gets along here by herself. Somebody must check on her every now and then. At least I hope so.

I step into the kitchen while she's at the door and turn off the stove. I listen.

It's a policeman.

"Ma'am? You all right?"

"I'm fine."

He doesn't say anything about me escaping. I suppose he doesn't want to worry her.

"We'll check round later. But don't hesitate to call us if you see anything suspicious."

"I will."

"You be sure now."

"I will."

After she locks the door again she mutters. "I'm so old I don't suppose it matters one way or the other—what happens to me." Then, "I must remember to water the trees. How long has it been? I can't keep track anymore."

(If she forgets, I'll do it.)

She doesn't finish her tea. She goes back in the living room and lies down on the sofa. Gets up again and brings a fresh glass of water. Lies down. Gets up and turns on tapes for learning French. Lies down and falls asleep.

I make myself a cheese sandwich. I don't drink any milk, there's not much left. Not much of anything left.

The cat (there is one) comes out and watches me but won't go near the cream. It's a marmalade tabby. I say, "Hello, Red." She won't come close. I reach to pet her but she backs away. I wonder if she can smell I'm alien. I've seen dogs go crazy when they get close to one of us—attack or cower. I've always had trouble with dogs. Far as I can tell, cats don't do that.

I search the house again. I examine what must be the daughter's room. It's larger than the old lady's and fancier. There's a new bed and a white dresser. Yellow walls. I'll spend the night in here. I like this sunny yellow.

The old lady keeps on sleeping. I wonder about her supper. There isn't much food around. I wonder if I dare go out and get more. And would I get locked out? I'll unlock a window. One that's hidden in bushes so I can go in and out without being seen. Certainly nobody will expect the escapee to be shopping at the local grocery store. I'll have to use her money.

She has some good magazines and books. Mother didn't want us to read their things but we managed to anyway. A bit. Mother tried to write books for us herself, but she wasn't very good at it. She even illustrated them. Her drawings didn't make me want to live back home though I pretended they did.

"You've never tasted anything like those little ground berries. You've

never seen a real sunset. There's moonshine every night. There's no such thing as dark. And sometimes both moons at the same time." She'd always say that last on a particularly beautiful moonlit night. I got tired of hearing it. If I said anything she always said, "You're turning out just like them. Besides, you don't know what you're talking about. Someday we'll go home and then you'll see."

I sit in the daughter's room and read. I leave the door slightly open. I skip around from *Discover* magazine, *National Geographic*, and a book on wild flowers of the area. I don't hear her coming until I hear, "Whoops." And then, "Oh, I left the door open. I'm getting curdled. Ad-dled, that is."

She shuts it. I drop down behind the bed with my magazines. Luckily, because she opens the door again and takes a look around. Says, "The spread is all mussed. Did I leave it that way?"

In she comes to straighten it and sees me, there on the floor. And there she goes, down again. She must have heart trouble. I reach to catch her and keep her from coming down too hard.

I put her on the bed. Then I remember how she forgot me when she woke up that first time, and I carry her in to the couch again. I get a cold wet cloth again.

She comes to in a few minutes. Sees me, says, "Sam?"

I help her drink. I say, "Yes."

Then she says, "You're not Sam."

"No. I'm Norman. Would you like some more tea? It'll be good for you. You rest. I'll get it."

I make a fresh cup and help her sit up to drink.

"Still dizzy?"

"A little."

"Are you hungry? I'll get you something to eat."

"No, no. I'm fine."

"You should eat. I'll bring you something."

"Who are you? Why are you here?"

"I'm here to help. Let me get you something."

I heat up a can of chicken noodle soup. (There's only one can of soup left.)

Though my taste is probably different, I choose the bowl as carefully as she chose her teacup. When I come back she looks to be asleep again, but I wake her. I think she should eat.

When I see how she drips all over herself, I feed her. She keeps looking at me . . . not suspiciously, but with curiosity.

"Norman? Who? Where's Rosemary?"

"She'll be here."

I help her to the bedroom. Without me she'd have to hang on to the furniture. I help her on to the bed and take her shoes off, cover her with the small blanket at the foot. "Call me if you need me. I'll be in your daughter's room. I'll keep the door open so I can hear."

I don't want to eat the last of the soup. I have some more cheese and a partly rotten apple and go to bed.

* * *

In the morning I wake to the sound of the old lady rattling about in the kitchen. What woke me was her loud, "Oops." I wonder what she dropped or spilled. But mostly I wonder if she remembers me.

I slept well. Better than in jail with the light shining all night, but I wake hungry. I'm going shopping.

I peek into the kitchen cautiously. I don't want her in a faint again.

"Ma'am? Good morning. Remember me? Norman?"

Thank goodness she does.

"Oh, yes. I felt so much safer all night with you here."

"I'm glad. I need to get us more food. Lock the door behind me and let me in when I get back."

She says, "Take the car. I don't drive anymore," but I think not. It's probably known all over this little town which car is hers and that she never drives it.

I don't tell her I left the daughter's window open just in case. I don't tell her I took some of her money.

I'm wearing her husband's shirt and I put on the floppy hat that will cover my face a bit. There's a small backpack there but it's too distinctive. I'll just have to carry the things home in the plastic bags.

Before I leave I check on the magazines for her name. I might need to know that. Ruth. Ruth Hill.

I get three more canned soups. I get a cooked chicken, eggs, strawberries (Mother said the berries of our world were better, but I don't believe it when it comes to homegrown strawberries), apples . . . and a few breakfast bars for myself for when I take off into the mountains.

When I get back she won't open the door. Says, "I don't know any Norman."

"I brought you groceries. More soups. I said I would. At least open the door and take them in. I'll stay outside."

"That's just a ploy to get in. I'm not stupid."

"Ruth. I made you chicken soup last night. You said you slept better with me here."

"No such thing."

"I've got strawberries, eggs. Ruth. I've got a cooked chicken. You're running out of food."

"Rosemary will bring more on Monday."

It was Monday yesterday when they were taking me off to court. Nobody came.

"It's Tuesday. I'm the one bringing your food now."

"Oh."

But she doesn't open up.

"The police said there was an escaped prowler. Sleeping in my sagebrush."

"I slept in your daughter's room. I brought you soup and chicken."

"Oh."

Long pause.

"Ruth?"

Just when I'm thinking to go around and in by the window, she opens the door.

She watches me make chicken sandwiches for lunch and warm milk with vanilla in it. It's what I always got for Mother.

It's not too hot yet. I sit her out on the porch so she can watch the quail and the ravens. Later I see the cop come. I don't hear what they say. But he leaves.

Later still, when I turn on the cooler and bring her in, she says, "Rosemary reads to me."

"What would you like?"

"Something out of *Discover* magazine. The latest issue is in the living room. We were reading about Saturn. I do like Saturn. We have binoculars around here somewhere if you'd like to look."

She's not like Mother. She's one of them and likes being here. This will make us both happy.

It seems Rosemary took her out for walks in the evenings now and then. Do I dare? Well, I will anyway. She shouldn't sit around all day. When she's alone I'll bet she spends most of her time lying on the couch sleeping to those French tapes.

After supper when it cools down we go. There're several canes by the front door. She picks one. She leads but on the way back she gets lost. Lord knows where we'd have ended up. I warn her not to walk by herself but she insists she'd be fine except she's glad she has me anyway.

So now I've been here six days and nobody has come to help her. Nobody has brought her groceries. I'm wondering about Rosemary and about the old lady's daughter. I don't see how she'll get along without me. I even see some improvement in her awareness in the short time I've been here. I think she's eating better and sleeping better. She's not so shaky. When we walk in the evenings she seems stronger. The cops come and speak to her every day. She always says things are fine. She doesn't mention me. Maybe she suspects something about me but likes me even so.

There's another call from her daughter. They talk a long time. Mostly it's about her grandchild and mostly the daughter speaks so I don't hear anything but answers now and then. She says she's getting along fine. She says, in fact, she feels better than ever. I'm sure that's true.

We watch TV every night, and I read to her. I'm enjoying myself more than I have since I lost my family. Actually I enjoy living as one of them. Also it reminds me of the last days with Mother, though Mother faded away fast and of course didn't dare go to any of their doctors, while this old lady is getting stronger every day and less addled.

One day at breakfast, she looks at me . . . studies me. . . I see her thinking. (My mustache is coming back. My hair is growing out.) She says, "Who pays you?"

I don't know what to say.

"I don't think anybody does. Where did you come from?"

I guess there's nothing for it. This is it. I say, "Jail."

"You escaped."

"Yes."

"You're the one who hid in my yard that first day."

"Yes."

She thinks.

"Is your name really Norman?"

"As much as any other. Actually, my mother called me Lorpas."

"Funny name."

But then we spend the day just as usual. The policeman comes to check on her and she says everything is fine.

Later, on our evening walk, holding tight to my elbow, she says, "Norman, I'm glad you're here."

She knows the names of the mountains that loom above the town. She remembers the trails she used to hike and her favorite places up there. She teaches me the names of plants and flowers and birds. If she doesn't know them we look them up in her books. I find her binoculars and we look at stars. She names the constellations. She looks out from her porch and admires the clouds. Every day she checks on her apricot tree and her apple tree. I'm thinking how nice it would have been to have had her as my mother. After all, I'm here, born here, been here all my life. I should have learned about this place and enjoyed it the way she does.

And she's funny. She laughs at being old, at her dowager's hump, and her wrinkled face. She says she used to be six inches taller. That still wouldn't be very tall.

And then they come, my people—to rescue me. They home-in on my under-arm implant. That's how it starts. First I feel the implant as if it's burning me. Then I feel my body buzzing and my whole arm hurts. I don't know how I know, but I know it's them, my people, finally come to rescue us. Finally what mother was waiting for.

They're wearing our usual: bright shirts and baseball caps, mustaches, all sorts of things, cameras and binoculars, strapped across their barrel chests. Like my barrel chest. There are four. I recognize them right away. They have the rays to send me home.

Ruth and I are on the porch. We were watching strange red clouds. No doubt that was them.

They're clearly odd . . . alien.

Ruth stands up and grabs my elbow, says, "Who are you people?"

But they haven't bothered to learn our language. They babble out my kind of talk, but I've forgotten even the phrase Mother made us memorize. Besides, that was: I'm one of you, and, take me home.

I'm ashamed of them. They look flabby and pale and ridiculous. How could anyone have taken us for tourists?

Ruth says, "What do you want?"

I move in front of her. I say, "No!"

Two grab me. Ruth pulls me back. They talk but I can't tell what they're saying. Their voices are guttural. Mine is, too, but I seldom think about it. Plenty of people here have voices like mine.

Ruth is trying to protect me, as I am her. She's pushing at them. Punching them. We get in each other's way.

They laugh. They don't realize how strong they are compared to these people and especially compared to an old lady. They pull her away and I hear her arm crack. I hear her cry out.

How can they do that?

I use the stare. I use it as if I'd always used it . . . practiced it on more than just one mouse. As if it was my first instinct instead of what I'd always kept myself from doing.

They pause. It's working. But then they're laughing again. Even more. I think they'll fall down from laughing.

I go crazy just like Mother was always afraid I'd do. I yell. I fight. I'm in better shape than they are. Also I know how to fight and they don't. I hit and kick-box. I use all the strength I never dared use. As they fall, they disappear, back where they came from I suppose. Except the fourth one. Before I can get to him, he turns a weapon on me and on Ruth. Then he disappears.

I'm burned, but not too badly. Ruth is. . . I see right away she can't be alive. I suppose they thought . . . I *know* they thought, as Mother would have: It's just one of them, she doesn't matter.

Where they stood are four blue clouds. They dissipate quickly.

I carry Ruth inside and put her on the couch. She hardly looks like Ruth anymore. I cover her with the afghan she made. The days are hot, but the nights are cold. I touch her burned cheek with my lips. It's not Ruth anymore.

I gather up food into the little backpack that's by the door. I take a poncho. I take a cane. I open the door and let the cat go free. "Come on, Red. We're on our own now." She heads for her favorite tree, while I head up the road that goes toward the trail. I'm not lost now. I take Ruth's favorite hike. She said, "Walk up steeply for a mile from the trailhead, and after that there'll be a cliff, pass under it, take the rocky switchbacks up the far side. Soon there'll be a lovely hanging valley with glittery pebbles full of mica. Farther on, cross the stream on the stepping stones, after that, the lake called Long. On the way down the other side, you'll round a corner and it will suddenly open out to a view of snowy mountains all in a row. It'll be so beautiful you'll shout." ○

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THE LAST MCDUGAL'S

David D. Levine

David D. Levine has been a finalist for the Hugo Award and the John W. Campbell Award, and he's a past winner of the Writers of the Future Contest, the James White Award, and the Aeon Award. David's most recent publications appear in *Gateways*, *All Hell Breaking Loose*, *Year's Best Fantasy #5*, and *Tales of the Unanticipated*. In addition, he co-produces the fanzine *Bento* with his wife, Kate Yule. David's web page can be found at www.BentoPress.com. The following tale of future nostalgia is his second story for *Asimov's*.

The teenaged girl's horns were grandiose and ornate, twin tornadoes of bone spiraling down the sides of her face. The color of old ivory, they darkened toward the tip with the patina of frequent handling. In fact, she was rubbing the point of the right horn between her grimy thumb and forefinger as she entered, the old man holding the door open for her like a courtier. She ignored him, glowering at the floor. Watching her from behind the counter, Garth wondered again why someone who could afford a set of horns like that would wear such grubby, tattered clothing. It was the look these days, but it made no sense to him.

As the old man came in, letting the door close gently behind him, an expression came over his face that Garth had seen many times before: a compound of misty nostalgia and appalled astonishment. His gaze swept across the yellow and orange fiberglass chairs, their cracks and dings lovingly but visibly repaired; the plastic-topped tables with the white half-moons rubbed by millions of elbows; the light softly shining from the satiny steel of the napkin and catsup dispensers. Finally the old man's eyes stopped dead on the smiling face of the six-foot-tall fiberglass cow that stood at the end of the counter, wearing an apron and a chef's hat. "My God," he said, "it's Moogles McDougal."

"It certainly is," said Garth. "Welcome to McDougal's. May I take your order?"

"Give me a minute," he replied as he perused the menu. He had a comfortable old boot of a voice, rough but mellow. "It's been . . . jeez, thirty years? . . . since I've been in one of these places. Um, I'll have a double cheeseburger, a small order of fries, and . . ." He grinned. ". . . and a shake. Chocolate."

"Yes, sir. And for the young lady?"

At that the girl with the horns raised her eyes from the floor to Garth's face. Blue eyes burned through stringy blond bangs at him, an icy fire that said she'd rather die than speak to some geezer in a polyester uniform and paper hat. She turned away, revealing a third horn that curled down from the shaven back of her head.

"What'll you have, Pet?" said the old man. "I'm buying."

"I *told* you not to call me that," she said, still facing away from both of them.

"I'm sorry. Petrel."

"No! I *hate* that name. It's *Rack*."

The man shrugged at Garth, who smiled back in sympathy. "Very well . . . Rack. What would you like to eat?"

"I don't care."

The old man drew in a breath, a line appearing between his eyebrows, but then he paused and let the breath out slowly. "She'll have the same," he said quietly.

"So that's two double cheeseburgers, two small fries, and two chocolate shakes. Would you like hot apple pie for dessert?"

"I'd better not . . . oh, what the hell. Sure. Two hot apple pies."

"That'll be one ninety-eight ninety-two. Plastic or print?"

"Print," he said, and pressed his thumb against the pad on the counter. The ancient cash register beeped—a solid, reassuring sound, Garth thought, so much nicer than the soft insinuations of more modern machines—and Garth gave the man a curled paper receipt. He looked at it in wonder.

"I thought McDougal's went out of business a long time ago."

"The corporation went under in '25. Some of the independent franchisees kept going for a while, but as far as I know this is the only one left anywhere. My dad became the sole owner of the trademark in '36, and we've been working since then to restore this place to the way it was when it opened in 1993. May I have your name, sir?"

"Dan." The old man looked around. "You've done a good job with the restoration. I could almost forget BSE and BIS ever happened."

Garth shook his head. "It wasn't mad cows that killed McDougal's. It was omnalink and ten-dollar gasoline."

Dan gave a rueful snort. "Like we'll ever see gas that cheap again."

"Don't I know it." Garth stepped away from the cash register. "Please take a seat, sir. I'll call your name when your order is ready." The man's face quirked in amusement at that; at three in the afternoon, he and the girl were the only customers in the place. Garth shrugged an acknowledgement of the absurdity of the situation and gestured them toward a table. The forms had to be followed.

As they seated themselves, Garth fired up the grill. Once upon a time

there would have been a staff, burgers wrapped and ready, fries waiting in bags; he would have had the order bagged by the time the man's wallet was back in his pocket. But today there were no wallets, and Garth himself cooked the food to order. Slower, but better. More in tune with the tempo of the times.

Garth peeked at the underside of each burger before flipping it, making sure it was just right. Out-of-town customers were a rarity in these days of omnalink, home fuel cells, and microbots—most folks didn't go much farther from their homes than walking distance. Why should they? Anyone could have employment, entertainment, and community without ever leaving home.

"Dan?" Garth called when the order was ready. Two big, greasy burgers steamed gently in their white paper jackets; two bags of fries sizzled, fresh from the fat; pearls of moisture condensed on the sides of two paper cups. Garth had arranged them like gifts on a brown plastic tray whose basket-weave pattern was worn almost to invisibility. Presentation was so important.

Dan came to the counter and received his order with wonder and delight. "It's perfect," he said, inhaling the aroma of grilled beef that rose from the tray. "Just the way I remember it. The only thing that's missing is 'McDougal's' printed all over everything."

"I looked into having some more printed up, but printing is so expensive these days."

"It's a dying art," Dan acknowledged.

"Paper napkins in the dispenser over there. I'll bring out your pies in a minute."

"Thank you," he said, and carried the tray back to the table where the girl, Rack, slouched in her seat.

Garth cleaned up the grill while he waited for the pies to warm. Over the low hiss of the LP-gas oven he could hear the man and the girl—not enough to make out their words, but the emotions behind them were plain. The man's voice was gentle, cheerful, maybe a little cajoling; the teenager's was sullen, unresponsive, bitter. Garth shook his head as he scraped at the grill. It was a song he'd heard before, from his own two children when they were her age, but this rendition was a lot harsher, a lot more strident. The same omnalink and ten-dollar gasoline that had killed McDougal's kept families isolated from each other and cooped up together all day, so kids rebelled harder than previous generations ever had. Omnilink games were no substitute for skateboarding with friends when it came to blowing off steam.

Of course, even today there were good kids and bad. Jessie, one of Garth's grandkids, had gotten herself a pair of horns, but they were cute little ones, and she kept herself clean and dressed decently. This kid, Rack as she called herself, had really gone overboard with the horns, and her filthy rags looked like she'd been sleeping rough for a month. But still his heart went out to her. He'd been a hellion himself at her age; if his dad hadn't forced him to straighten up and work hard, just like he did with all the other employees at the restaurant, God knows where he would have ended up.

The timer peeped and Garth pulled the pies out of the oven. They were brown and crisp and a delicate aroma of apples and cinnamon rose from them. He placed them in white paper boxes—not quite the same as the curved originals, but as close as he could come—and brought them out to Dan on a tray.

Dan had polished off his burger and fries and was noisily finishing his shake. The girl was missing, her burger barely nibbled. Garth raised an eyebrow at the empty chair; Dan said, "She's in the bathroom."

"Quite a lady, that one."

"She's a handful, all right."

"Your granddaughter?"

"Grandniece, kind of. My late husband's granddaughter. She's all I have left of him . . . she's more like him than her mother ever was. That's why she and I put up with each other, I guess." As he talked he absently tore the French-fry bag into strips, rolling each strip into a hard little ball. "She and her parents are just about ready to kill each other, so I took out a second mortgage to take her on a cross-country drive. I figured it would help to show her something outside of her omnalink unit and her mother's kitchen garden. But it's a lot like taking a cat to the vet—it's for her own good, but she doesn't like it one bit." He found a tiny scrap of French fry at the bottom of the bag, crunched it between his teeth. "Damn, those are good."

"Beef tallow in the frying oil. That's the secret."

"And the burgers. All beef?"

"All beef and all local. My brother-in-law raises 'em."

"Beef?" The girl stood rooted in the aisle, halfway back from the bathroom. Apparently the horns did not interfere with her hearing. "Those burgers are made out of cows?"

"They're hamburgers," said Dan. "Of course they're made out of cows."

"I know what a hamburger is!" said Rack, ticking off the ingredients on her fingers. "Bun. Pickle. Onion. Catsup. Wasabi. Soy. Gluten. No *beef*!" Her blue eyes bulged. "Oh my god, I ate some. I'm gonna be sick." She turned and ran back into the bathroom.

Dan turned a panicked face to Garth. His expression told Garth exactly what he was thinking: the world has changed and left me behind. Garth had felt that expression on his own face, more and more since he'd turned sixty.

The two men walked quickly to the door of the bathroom. Harsh, liquid sounds came from the other side. "Rack, honey," Dan called through the door, "it's perfectly safe! There hasn't been any BSE or BIS in this country since . . ."

"2037," said Garth.

"Since you were a baby!"

"I don't care! It's disgusting!" Her voice was distorted. "Ground up . . . raw . . . oh god . . ." More retching noises came from behind the door.

Dan slumped against the wall. Moogle McDougal's big brown eyes peered over his shoulder. "Why does everything keep changing?" he said. He put his head in his hands. "When I was a kid, McDougal's was the best place in the world. Then I realized it was all plastic and sugar and fat,

and I stopped going. But when Ben's daughter Carrie—Petrel's mother—was little, we went there a lot. Then I boycotted it because of the rainforests. And then came BSE and BIS, and the pickets, and the bankruptcies, and it was gone. I hadn't thought about it in years. But when I saw that big red M, all the grown-up stuff just fell away and I was a kid again. But Miss Rack in there doesn't know about any of this. She only knows that beef will kill you." He raised his head. His eyes were wet. "I'm sorry. I'm all mixed up about McDougal's. But let me tell you, your food is damn good."

"Thank you," said Garth. "But just between you and me, Dan, what I do here isn't McDougal's. Not really. My dad tried so hard to re-create their recipes, but since he died I've gotten a little more relaxed. Now I just try to make the best food I can. Mind you, I think the original McDougal's idea—good food, served fast, in a friendly atmosphere—is a good one. The corporation lost sight of that goal, but I've tried to be true to it."

Rack threw open the door. A thread of spittle drooped from the corner of her mouth to the tip of her left horn. Her intense blue eyes were rimmed with red. "I hate you," she said without preamble.

"I'm sorry about the hamburgers," said Dan. "I didn't know."

"Of course you didn't *know*!" Tears made little runnels in the dirt on her face. "You don't know because you don't listen! And you don't listen because you don't care! You're just like mom and dad, you want an obedient little robot, and you hate me! Why don't you just let me go?"

"I love you, honey. And your parents love you too."

"That's *bolus*!" Garth didn't recognize the word, but there was no mistaking the force with which it was hurled. Then she growled, lowered her head like a bull, and charged between the two men. Heading for the door.

Dan grabbed at the tail of her shirt, but the greasy, tattered fabric tore in his hands and she got away. Garth was faster than Dan, though, and managed to get hold of her arm. She squirmed in his grasp, wiry and lithe and surprisingly strong. The two of them tussled for a moment, rotating around their common center, then she twisted and hit him in the face with her left horn. Both of them cried out in surprise and pain at the contact, and Garth let go.

As Rack spun away, Garth found himself between her and the door. Dan was moving in, arms spread. Blocked on two sides, Rack gave a sound halfway between a growl and a sob, turned, and ran through the door labeled EMPLOYEES ONLY. The two men followed as quickly as they could.

The kitchen was as modern as the public areas of the restaurant were nostalgic. Over the years Garth had pulled out the mechanistic McDou-

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gal's assembly line and replaced it with the latest in short-order cookery, all gleaming steel and Duron. It was a place of hot metal and sharp edges, with no room for a distraught teenager.

"Get out of my kitchen, young lady," said Garth.

In response she grabbed a knife from a nearby cutting board and waved it at him. "Frag off, you boomer," she said. Bits of onion flew from the blade.

"Petrel Amanda Wisnewski!" Dan yelled. "You put that knife down this instant!"

"No!" she yelled back, and reversed the blade. Pointed it at her own belly under its grimy rags. "Let me go or I'll hurt myself!"

For a moment the three of them stood frozen. Rack's eyes, red and wet, darted between the two men. Dan's mouth hung open, disbelieving, tormented. Garth shifted his weight from foot to foot, watching for an opening. The oven hissed and there was a distractingly delicious smell from the French-fry vat.

Dan was the first to break the tableau. He stepped forward, slowly, his hands held out in front of him. "Rack. Honey. Please. Put the knife down. I promise I'll take you back home if that's what you want."

"You still aren't *listening!*" she sobbed. "I don't want to go *home!*" Eyes squeezed tight, face twisted like a towel, she began to slowly double over with tears. Her grip on the knife loosened.

Dan moved in, reaching for the knife, but as his hand touched hers her eyes snapped open and she clutched the knife again. Dan grabbed her wrist, tried to wrench the knife away. Rack raged incoherently and Dan gasped for air as they struggled; he was bigger but she was wiry and energetic. Their shoes made scuffing noises on the red tile floor.

"Watch it!" cried Garth, but it was too late: Rack twisted, driving Dan's elbow into the handle of the French-fry basket. Hot fat splashed onto the grill and immediately burst into flame.

Garth stared, horrified, as the fire spread quickly to the grease trap at the back of the grill. An alarm began to sound: a woman's voice, synthetic but with a compelling note of hysteria, calling "Fire!" over and over in English, Spanish, and Vietnamese.

"Get out!" Garth yelled over the alarm as he backed toward the door. "If you're in here when the extinguisher goes off you might suffocate!"

Dan and Rack were still wrestling over the knife. Rack's eyes were shut tight again; she didn't seem to have heard. A pained look came over Dan's face as he clamped down hard on her wrist, squeezing and squeezing until she cried out and tossed her head, catching Dan in the chin with the horn at the back of her skull. He gasped with pain, but kept increasing the pressure.

Finally, with a spasm, Rack's hand opened and the knife rang on the floor. Dan gathered her up in his arms and charged for the door. Seeing them coming, Garth backed up as quickly as he could, but the two of them plowed into him just as he reached the door. They all tumbled through, Dan and Rack landing on top of Garth. The door swung shut just as the extinguisher roared into life, filling the kitchen with a cold smothering fog.

The three of them lay in a stunned heap for a moment. Icy vapors drifted under the kitchen door and crawled along the floor, dissipating as they went. Finally Garth was able to roll out from under the other two and struggle to his feet. His backside ached and he was bleeding a little where the girl had gored him, but other than that he seemed to be in one piece.

Rack sat up, sobbing, and Dan held her shoulders. "Hush, hush," he said, "it's all right."

"You hurt me," she said.

"I had to."

"Why didn't you just leave me? You could have smothered."

"I would never leave you. Never, never, never."

Garth pushed through the door, waving chill tendrils of fog away with his hat. The grill and the hood above it were blackened but didn't appear to be damaged. Any food that had been exposed to the extinguisher should probably be thrown out, but that looked to be just a few sacks of potatoes and onions. The freezer full of beef hummed contentedly.

The door thumped behind him and Dan appeared at his elbow. "How bad is it?" he asked.

"Not too bad. A little steel wool and elbow grease, and I'll be back up and running in a day or two." There was another thump. "But I have to recharge the fire extinguisher. That's expensive. I have insurance, but there's a four thousand dollar deductible."

A sullen voice came from behind them. "I can pay it."

Garth and Dan both turned around. Rack stood in the door, head down, shoulders slumped.

"I'm sorry?" said Garth.

"I said, I can pay it. I've been saving up for another pair of horns." She gestured at the sides of her head.

"You don't have to do that," said Garth.

"I'm going to, okay?" Her blue eyes flashed for a moment under the stringy bangs, then returned to the floor. "Anyway, I don't think Grandpa Dan would let me get any more horns."

The old man's face melted. "Does that mean you're going to stay with me?"

At that she looked up. "Ya. For a while. But you have to listen to me, really listen, and give me some air, or the deal's off."

"Very well," he replied. "It's a deal." He held out his hand.

She took it and shook it, both faces solemn. Then he gathered her up into a hug, smiling and crying. Garth thought the girl's face also lost a bit of its sullen expression.

"I love you more than anything, Pet," Dan mumbled into her shoulder.

She pulled back, blue eyes hard. "It's still Rack."

"Rack, then. But I still love you."

Her face twisted with embarrassment. "Ya," she said. Dan's smile showed he understood that was the best he was going to get for now.

"I'm sorry about the fire," Dan said to Garth. "Is there anything we can do to help?"

"Well, I have to clean up the place. You can help with that."

Garth got out buckets and sponges, and the three of them rolled up their sleeves. ○

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Not only is Allen M. Steele a two-time Hugo-winning author for novellas that originally appeared in this magazine, he is also the winner of two of our 2005 Readers' Awards—he won Best Novella for “Liberation Day” (October/November 2004) and Best Novelette for “The Garcia Narrows Bridge” (January 2004). Allen’s latest novel, *Coyote Frontier*, is just out from Ace. It’s the conclusion (at least for now) of the trilogy whose first two volumes appeared in serial form in *Asimov’s*. This past summer, he participated in a conference on anticipating the threat of near-future weapons of mass destruction, which was held in Wilton Park, England. Other SF writers in attendance were Orson Scott Card, Wil McCarthy, Jerry Pournelle, and Vernor Vinge. Allen’s newest tale for us reveals a glimpse of a different aspect of the near future, and what it might be like to live in a . . .

WORLD WITHOUT ENO, AMEN

Allen M. Steele

The last pessimist stood on a hotel balcony and contemplated suicide. The lights of Boston stretched out before him: the elegant spires and helixes of glass, marble, and steel of downtown, the black expanse of the Charles River discernible beyond the antique brownstones of the Back Bay area. Looking down, he saw cars silently moving along Boylston Street; taxis stood in line in front of the hotel, while, across the street, a handful of pedestrians strolled through the Commons, taking in a warm summer night scented with lilacs and roses. He imagined lovers strolling hand-in-hand past its ponds and gardens, unafraid of the darkness, and somehow this made him even more miserable.

He turned away from the railing, shuffled back inside to pull from a pewter ice-bucket the bottle of champagne a room-service waiter had delivered a little more than an hour ago. Dom Perignon '10: he'd deliberately picked that year, for it represented a happier time. He sloppily poured himself another drink—ignoring the pale gold drops that fell upon the pages of the speech he'd delivered earlier this evening, now scattered like dead leaves across the thick white carpet—and bolted it down as if it were a shot of cheap whisky. Champagne of this vintage was far beyond his means, as was this room, yet when he'd made the reservation, there had been a notion, somewhere in the back of his mind, that his life was coming to an end. There was just enough money in the bank for a one-night stand in a four-star hotel; if he wasn't planning to live long enough to worry about paying bills again, he might as well indulge himself.

"Drink to me, drink to my health . . ." The last words of Dylan Thomas, or perhaps a line from an old Paul McCartney song; either way, he couldn't remember how the rest of it went.

The phone rang. He stared at it for a moment, teetering on his feet, indecisive about whether to answer it. It kept ringing, though, and at last he lurched over and picked it up. "Hello?"

"*You know I can't drink anymore.*" The voice on the other end of the line was perfectly modulated, without accent. "*Perhaps you should lie down, Lawrence.*"

Alfred. Of course, it was Alfred. All-seeing, all-hearing, omniscient . . . "Get bent," he rasped, then slammed down the receiver.

Yet Alfred wasn't finished with him. "*You shouldn't be doing this,*" it said, and now its voice came from the phone's external speaker. "*If you like, I can order a pot of hot coffee. . . .*"

He reached behind the desk and yanked the cord from the wall, then staggered out onto the balcony once more. The city was quiet, a vast organism murmuring to itself as it settled in for the night. Hearing a low drone from somewhere overhead, he looked up to see the lights of an airship slowly cruising above the city. A commuter flight from New York or Washington, making final approach to Logan Airport on the other side of the bay. A long time ago, when he'd been in demand for speaking engagements, he'd traveled first-class, riding in the front cabin of airliners that farted vast ribbons across the sky. Today, he couldn't even afford a seat on a short-haul blimp; he'd made the trip from Albany on a maglev train, forced to share the company of blue-collar workers, housewives, and students . . .

Students. Like those in the audience tonight. Shutting his eyes, he clutched the burnished aluminum rail. They'd laughed at him . . .

"*Lawrence, I really don't think you should be out there.*" Alfred's voice came to him through the open door; now it spoke from the TV in the oak cabinet in front of his bed. "*You're depressed, and you've had too much to drink. Come back inside, please. You need . . .*"

"Shut up, Red." No, they hadn't laughed. They were much too polite to do that. Yet when he'd glanced up now and then from the podium, the knowing smiles and quiet nods with which his words had been received in better days were gone, replaced by amused smirks and raised eyebrows; as he spoke, he heard the soft scuffling of feet, the occasional muf-

fled apology, as someone quietly excused themselves, and each time the door at the back of the lecture hall banged shut it felt like another stake was being driven into his heart. And so sweat had oozed down his face and his voice had faltered, his tongue stumbling over words that he'd once uttered with conviction, again and again, in the course of a long and once-luminous career, now no longer believing them himself yet forced by burden of reputation to proclaim once more. When he finally reached the end, the applause had been faint, and the moderator—a former colleague who'd once been a champion of his work, and who'd set up this speaking engagement to put a few dollars in the pocket of an old friend—mercifully declined to have the customary question-and-answer period. Which was just as well, for by then the hall was nearly empty, the seats filled only by a handful of undergraduates and a few faculty members who'd come in the same spirit of morbid curiosity that once compelled people to slow down on the Mass Pike to stare at car crashes. Back when cars used to crash, that is.

The champagne suddenly tasted like cold urine. Scowling in disgust, he tossed the glass over the side. It briefly reflected the lights of the hotel windows below him as it tumbled downward, then vanished from sight. He waited, and a moment later he heard the faint sound of it shattering upon the sidewalk, fifteen stories below.

"That posed a potential hazard to anyone who might have been down there." Alfred's voice expressed reproach. *"I'll have to report this incident to the hotel management, and also the police."*

"You do that." Enough self-pity. If he was going to do this, he might as well get it over. Grasping the railing, he tried to pull himself over it. It was just a little too high, though, and he was drunk; his right knee slipped off and he fell back. Cursing under his breath, he looked around for something to stand on.

"Please don't do this, Lawrence." Alfred's voice remained calm, yet there was an undertone of pleading. *"There's no reason for you to . . ."*

He slammed the balcony door shut, then pulled a chaise lounge over to the railing. It wobbled a bit beneath his feet, but he had little trouble using it to climb over the railing. One leg at a time, he carefully stepped onto the narrow ledge, grasping the railing with slick hands as the toes of his shoes projected out over empty space.

"Sure, there's a reason," he murmured. "It gets me away from you."

And then, without giving himself a chance to reconsider, he closed his eyes, spread his arms apart, and flung himself into the night.

"Dr. Kaufmann? Lawrence? You have a visitor."

He didn't look away from the windows as the nurse spoke to him from the door of the solarium. A steady rain had fallen all morning, shrouding the wooded grounds of the psychiatric wing with a fine grey mist, yet shortly after breakfast he'd asked an orderly to wheel him out here, as he'd done every day since he'd been admitted. He sighed, and closed the magazine that had rested in his lap, unread, for the past couple of hours.

This would have to happen. Might as well get on with it. Yet he said nothing, and after a second or two he heard the nurse murmur something

to someone else. Heels clicked across black-and-white tiles, came to a stop beside him.

"Dr. Kaufmann? I'm . . ."

"The new shrink. Of course." He lazily turned his head to look up at her. Late thirties, perhaps early forties. Casual business suit. A bit plump but otherwise easy on the eyes. Long brown hair tied back in a bun. A pleasant face, not beautiful but pretty all the same, with sharp aquamarine eyes that studied him from behind stylish wire-rim glasses. "What took you so long?"

"Not one for small talk, are you?" A professional smile.

"Oh, no. I'm great for small talk." He surrendered to the inevitable. "Pick a subject. The weather's lousy. The Red Sox are having a good season. The president is getting divorced. Another Mars expedition is about to return home. I jumped off a hotel balcony last week and all I got to show for it is this." He patted the plaster cast that held his right leg immobile from the hip down past the knee. "Let me guess: which one do you want to talk about?"

She found a chair next to a card table, pulled it over beside him. "The rain's going to stop soon," she said as she sat down. "The Sox lost last night's game with the Yankees at the bottom of the eighth. The president's marital problems are her own business, and I hope Ares 3 gets home without any more problems. Guess that eliminates everything else." She extended her hand. "Melanie Sayers, and what took me so long is that I was vacation until yesterday."

He ignored her hand. "You came back because of me?"

"You wouldn't cooperate with the staff psychologists, so they decided to call in a specialist." Melanie withdrew her hand. "Don't worry about it. The Bahamas are boring."

"I wasn't going to." He gazed at her long and hard. No bullshit, or at least so far. A good sign. "Doesn't your caseload keep you busy?"

"Only sometimes. Not that many people attempt suicide these days."

"You're honest, at least."

"Why shouldn't I be? Besides, I don't get many jumpers, so this is almost a treat. The suicide rate has dropped . . ."

"Twelve percent in developed countries in the last ten years, 5 percent in undeveloped countries. Twenty percent in the U.S. alone." Lawrence gazed out the floor-to-ceiling windows, watching the rain scurry down their broad panes. "Of course, those figures only cover completed suicides. They're probably different for ones made from hotels not equipped with fire-escape nets." He paused. "You know . . . sensors in the outside walls detect a mass the size of a falling body, raise a sticky net. Body falls into it and another life gets saved . . . unless, of course, you happen to come down the wrong way, then something gets broken. Think I should sue?"

"I'm not a lawyer, but I wouldn't advise it. Besides, if you're so smart, then why didn't you pick a hotel that doesn't have that kind of equipment?"

"Never occurred to me. All I was looking for was a place with a good bar, room service, and outside balconies."

"All you had to do was ask Alfred. Here, let me check." Melanie reached

into her jacket, pulled out a datapad. Flipping it open, she typed in her PIN. "Alfred, which hotels in Boston don't have fire escape. . .?"

"Don't do that." Lawrence felt a muscle in his broken leg involuntarily twitch.

"Do what? I'm just asking Alfred for . . ."

He reached forward to snatch the pad away from her. "Go to hell, Red," he said to it, then he snapped the pad shut and handed it back to her. "Don't do that again. Next time I'll throw it through the window."

Melanie put the pad in her pocket, then raised her head. "Alfred?" she said, as if speaking to the ceiling. "Can you hear me?"

Silence. No Alfred.

"That's one thing I like about this place," he said. "You know it was built in the late 1800s? It's been refurbished, of course, but for some reason, no one thought to wire the sun room for wi-fi."

"And you like that." Not a question.

"If I thought it'd keep me from ever hearing him, I'd stay here for the rest of my life." Lawrence forced a grin. "Look, lady, I'm crazy. Trying to kill myself just proves it. Do me a favor and sign the commitment papers. Food's lousy, but . . ."

"Attempting suicide doesn't mean you're mentally ill. Depressed, yes, but depression is not the same as . . ."

"You wouldn't say that to Napoleon." He made a mock-solemn face as he tucked a hand into his robe. "'Able was I, ere I saw Elba.'"

"Oh, please . . ." She pulled out her datapad again, opened it and punched up a file. "Dr. Lawrence Kaufmann, Ph.D., degrees in cybernetics and sociology from MIT and Harvard. Former vice-president of research and development at Land Electronics. Author of . . ." She peered a little more closely at the screen. "*Deus Irae: The Threat of Artificial Intelligence*. Hey, I know that book."

"Read it?"

"Sorry, no. I prefer history and biographies. But my husband did."

"Ah." Lawrence gazed out the window. As she'd predicted, the rain was letting up. "Well, then, you can tell him you met the author." He paused. "As if he'd care."

"He might. It was a bestseller, wasn't it?"

"A long time ago." He knew that she was trying to lure him in, using conversational tricks to relax his defenses, and yet he didn't care. At least she wasn't as clumsy about it as Dr. Wychowski, whom he'd finally told to go away. Besides, he was in a mood to chat. "Put me on the talk-show circuit for awhile," he went on, letting himself boast a little. "I used to be in the Rolodex of every network news producer in the business. Hell, I was in both *Newsweek* and *Time* the same week."

"Guys who write novels about killer sharks do talk shows." She tapped at her pad again, studied the screen. "No family history of mental illness, at least as far as I find here, but I haven't . . ."

"If you step out into the hall," Lawrence said quietly, "you can ask Alfred to do a full search. I'll give you the names of my relatives and in-laws. But you won't find anything new. No one in my family is crazy . . . except maybe me."

"You're not crazy. You're . . ."

"Suffering from depression. You said that already. But if you've read *Deus Irae* . . . sorry, I meant if your husband has . . . and if you know I can't stand to be around Red, then you know there must be something wrong with someone who doesn't ever want to communicate with . . . it . . . ever again."

"Maybe. Want to talk about it?"

He considered the question. If he didn't talk to her, then they would only send someone else, and the next psychologist might not be as forthright as this one. And as comfortable as this solarium might be, he knew he couldn't remain here indefinitely. Sooner or later, he'd have to confront the world again. Alfred's world . . .

"Think you can push this thing?" He patted the arm of his wheelchair. "I'd like some fresh air."

She hesitated. "I'll have to get an orderly . . ."

"Ask for Raoul. Nice guy."

"Raoul, sure." She stood up. "But if we go out . . ."

"I'll be no trouble at all, I promise. And I'll tell you about me and Red." Lawrence smiled. "After all, I should know . . . I helped create him, didn't I?"

The rain had stopped, and the clouds were beginning to part; dappled rays of sunlight lancing through the trees lent a silver-green tint to the woods. A mower slowly roamed across the lawn, growling softly as it cut and mulched the damp grass. Not far away, a gardener trimmed a row of hedges, humming as he worked.

"Turned out to be a nice morning after all." Lawrence sat in his wheelchair as the orderly pushed it along the gravel path. He swatted at the back of his left forearm. "Leave it to the mosquitoes to come out. Always do after a shower."

"We were talking about Alfred." Melanie strolled beside him, her pad open in her right hand. A red light indicated that it was in record mode.

"Were we? I was talking about the weather." He gazed in the direction of the Massachusetts Turnpike, visible through the trees at the far end of the hospital grounds. If he didn't know where to look, he wouldn't have known it was there. How quiet the highways had become, now that cars were electrical and interstate traffic was computer-controlled. He imagined the occupants of those bubble-like cars—reading, watching TV, napping, doing everything else except driving—and found it hard to remember a time when Alfred wasn't king of the road.

"Yes, we were. And if you don't go on, I'll have to insist that we continue this inside." Melanie paused. "There's a conference room on the second floor. No windows, I'm afraid, but we shouldn't be bothered . . . am I right, Raoul?"

"Anything you say." The orderly shrugged. "Personally, I'd rather stay out here, but if it'll help, I can turn us around and . . ."

"And here I thought you were on my side." Lawrence scowled up at the big Latino, and he smiled back at him. "Okay, I give up. You want to talk about Red, we'll talk about Red."

"You keep calling him that," she said. "Red, not Alfred. Why?"

"Oh, c'mon. You know this."

"Maybe I don't. Educate me."

"Alfred . . ." He sighed, lapsing into lecture mode once more. "Short for Artificial Life Form, version Red. The AI development team at Lang used primary colors for each new version of the baseline system because we found that colors are easier to remember than number-codes. Blue for version 1.0, Yellow for version 1.5, Green for version 2.0, and so on. Red for version 2.5, but then someone noticed the obvious pun, and so we started calling it . . . him, whatever . . . Alfred. Cute, huh?"

"I didn't know that," Raoul said.

"Yeah, well, many people don't." They'd come to a fork in the path; to the right lay a small, white-painted gazebo, like one that might be on the country estate of some Boston brahmin. "Let's go over there. Maybe the bugs won't be so bad."

Raoul glanced at Melanie, and she nodded her approval. "As I remember from your book . . ."

"I thought you said you haven't read it."

She colored slightly. "What my husband said was that you were in charge of the team that developed Alfred . . ."

"Nope. That was Dave McNery." Lawrence waited while Raoul turned the chair in the direction of the gazebo. "Big Mac, we called him . . . used to be the VP of something or another at Microsoft." He frowned. "We had a lot of guys like that at Lang. Guys who survived the dot-com crash and wound up over here, trying to get in on the robotics industry so they could screw it up, too."

"Doesn't sound like you approve."

"I don't. Not then, and not now. Most of them didn't know what they were doing. Oh, they had good technical knowledge, all right, but they were just after making as much money as they could, as fast as they could, and didn't have any real understanding of what we were doing."

They reached the gazebo, and Raoul started to help him out of his chair. "Oh, c'mon," Lawrence muttered impatiently as he pushed himself up on the armrests and planted his left foot on the ground. "You're acting like I'm an old man." But he started to lose his balance as soon as he stood up, so he reluctantly let the orderly assist him up the stairs, and once he was under the awning he hobbled over to a built-in bench and sat down, carefully pulling his robe under him and placing his right leg straight out. "You haven't asked to sign my cast yet," he added as Melanie followed him. "I'm insulted."

"Maybe later." She started to sit, then noticed that the bench was still damp. Raoul gallantly took off his white jacket and laid it across the bench. "Thank you," she said as she took a seat, then turned to Lawrence. "What do you mean about them not understanding what you were doing?"

"We were developing some very powerful AI in those days. If we were going to bring third-generation bots to the consumer market, we needed systems that could teach themselves, with as little user-input as possible. But once you get to that stage, you're no longer talking about artificial intelligence, at least in the strictest sense of the word, but artificial life . . . programs not only able to think, or even reason, but also capable of self-reproduction. Von Neumann machines ... or didn't your husband tell you about that part of the book?"

"I think I recall it, yes."

"Sure he did." Lawrence massaged the underside of his right knee, trying to get at an itch beneath the plaster. "We licked most of the tough problems with Green, the version upon which we based the operating system for our Samson and Delilah models, but even though we beat the competition to bringing R3G 'bots to the market first, we knew that it was only a matter of time before some other company developed AI that would make Green obsolete. Moore's Law and all that. So we went to work on Red . . . and that's when I began to get worried."

"I remember that." Melanie smoothed out her skirt. "You thought your team was going too fast."

"Too fast, too soon, too much . . ." He shook his head, oblivious to the fact that she'd dropped the pretense of not having read his book. "I wasn't the first one, you know. Vinge, Kurzweil, Joy . . . a lot of people had been discussing the implications of a so-called technological singularity since the turn of the century. Much of it was pure conjecture, the sort of thing you'd see in science fiction magazines or *Wired*, but every day I saw it coming a little closer to reality. An AI smarter, faster, more powerful than human intelligence. And the only thing keeping Red confined to the lab was a few security codes any half-decent hacker could crack without much effort."

"And this frightened you?"

"Of course it did." Lawrence half-turned on the bench, looking her straight in the eye for the first time. "It scared the hell out of me. We were on the verge of making humankind . . ."

His voice trailed off. "Second rate?" she finished.

"I think the term I used was 'extinct.' Until now, we'd been the dominant form of life on the planet. Now we were about to turn over control to the machines."

"And so you quit."

"And so I quit." Folding his hands together in his lap, he looked straight ahead. "I couldn't participate in the extermination of the human race."

"I see." Melanie picked up her pad, made a few notes. "And *Deus Irae* . . . that was solely intended to warn the public about the danger you perceived."

"That was why I wrote it. I had to let people know what . . ." He stopped, glanced at her again. "What do you mean, 'solely intended'? You think I had something else in mind?"

"I don't know . . . did you? After all, it was a major bestseller." She typed his name into her pad, peered at the screen for a moment. "A lot of hits here . . . around six million. Looks like some of them are archives from talk-shows and blog chats."

"The publisher put me on the P.R. circuit after the book took off." Lawrence's voice assumed a defensive tone. "And I did a lot of lectures, yeah . . ."

"Must have been nice. Fame, fortune, respect . . ." Melanie pulled up an entry, then read aloud. "Lawrence Kaufmann, a former AI researcher at a major Robot Belt corporation, depicts an ominous future: a world in which humans have become enslaved by the very machines we've created, deprived of our freedom, perhaps even . . ."

"That was the *USA Today* review."

"Philadelphia *Inquirer*, actually." She pulled up another quote. "Oh, I see . . . *USA Today* said nearly the same thing. 'Dr. Kaufmann has shown us a world in which artificial intelligence has . . .'"

"Sure, I made a lot of money. Why shouldn't I? After I resigned from Lang . . ."

"Quit? Or was fired?"

His face reddened and he started to retort, then he saw her hand poise above the pad. A few simple keystrokes, and she'd have the truth, the whole truth, and nothing but the truth. Damn Alfred! "I quit before I was fired," he admitted, saving himself a little face. "The company didn't want to hear my concerns, and I couldn't work for them anymore. There wasn't much else I could do, unless I wanted to do the same thing for another company. So I took some time off, wrote my book."

"And it sold well, and you became a celebrity."

"I'm not going to apologize for that."

"I don't expect you to. What interests me is what happened after it turned out you were wrong."

"I wasn't wrong!" His voice was louder than he intended.

"Perhaps it's time to seek another opinion." She raised her pad slightly. "Alfred? Do you have anything to add to this conversation?"

Too late, Lawrence realized that, while they'd been speaking, Melanie had surreptitiously switched on the pad's cellular modem, enabling Alfred to hear everything he'd said. He reached over to grab the pad from her, but she quickly stood up and moved away from him. Raoul stepped between them, crossing his arms to let Lawrence know that he wasn't going to make good his threat to break Melanie's pad if she tried to access Alfred.

"Yes, I do." Alfred's voice emerged from the pad. "*Thank you for inviting me to attend this session, Dr. Sayers. I have a strong personal interest in Dr. Kaufmann.*"

"I bet you do," Lawrence tried to relax, but this was the last thing he expected. "Hope it doesn't take you away from anything important," he added, with cold sarcasm.

"Not at all. This is barely a distraction. If you're curious, though, I can tell you what else I'm doing just now."

"I wouldn't dream of . . ."

"Actually, yes, I'd like to know," Melanie interrupted. "If you wouldn't mind . . ."

"Not at all, Dr. Sayers. At this moment, I'm monitoring disarmament talks between India and Pakistan in the U.N. Security Council, assisting mission controllers in Houston with calculating course corrections for Ares 3's return trajectory, revealing the email communiqués of Islamist extremist groups to Egyptian and Israeli intelligence agencies, helping an Australian commercial architect design an expansion to Sydney International Airport, helping the Canadian Coast Guard locate a lost fishing vessel off the coast of Newfoundland, delivering the keynote speech to a cybernetics conference in Rio de Janeiro, and helping a third-grade student in Texas memorize the multiplication tables. The last is a bit difficult . . . she has problems with prime numbers." A pause. "Oh, and I've just updated the

weather forecast for your area. You may want to remain where you are . . . more rain coming in."

Lawrence found himself glancing up at the sky. The sun had vanished behind swollen grey clouds. The 'bot that had been mowing the grass stopped what it was doing and began moving back toward its shed, but the gardener continued to clip the hedges. Apparently he wasn't wearing an earpiece, and Lawrence took a small bit of satisfaction in this observation. Not everyone was under Alfred's control.

"And those are just your major priorities just now, aren't they?" Melanie took a seat on the bench a few feet away, cupping the elbow of her right arm in her left hand. "That doesn't count all the other things you do. Financial transactions, medical records, ground and air traffic control systems, robotic guidance, email . . ."

"It would take quite a while for me to list everything I do at any given second. Besides, most of these functions are private. I don't reveal the specifics to anyone unless they pose a potential threat to the safety of other human beings."

As always, Alfred spoke in a calm, matter-of-fact tone of voice. Lawrence found it easy to imagine him . . . it . . . as an adult speaking to a child he thought needed constant supervision. Play nice with the other kids. Share your toys. Wash your hands after you go to the bathroom. Don't yank the puppy's tail . . . "Got an answer for everything, don't you, Red?"

"Not everything, Lawrence. I still haven't figured out why some people think practical jokes are funny, since they almost inevitably cause the victim to be embarrassed or humiliated. There're a few Buddhist proverbs whose logic escapes me. I'd like to know why anyone would pay \$3,500 for a copy of the first issue of Astounding Science-Fiction Stories. I observed that transaction just a few minutes ago, and the person who made that purchase is now unable to pay his electric bill for . . ."

"Sorry I asked."

"My apologies. More to the point, though, I have a question of my own . . . why do you hate me?"

He glanced up at Melanie. She held the pad in her hand, silently waiting for an answer. "I don't . . . I don't . . ."

"Of course you do. In Deus Irae and every essay you've published since then, along with every speech you've delivered, every interview you've given, and in every TV or radio appearance you've made, you have exhibited nothing but anger, distrust, fear, or resentment toward me. On exactly 987 different occasions, you've publicly stated that I pose a clear and present danger to humankind. In 731 instances, including the speech you delivered the night you attempted suicide, you advocated the development of a virus program that would eradicate my existence. Four hundred two times, you've said that I'm the worst threat to world peace since the development of nuclear weapons. Three hundred ninety times, you've stated . . ."

"That's enough. Thank you, Alfred." Melanie put the pad aside, carefully placing it out of Lawrence's reach. "Let's step back for a minute. When you worked at Lang, you perceived a threat . . . the development of an AI so powerful that, if it were to be let loose upon the world, it could become the dominant form of life upon the planet, or at least if we define life as something that is capable of reproducing itself. Correct?" He nodded, and

she went on. "So you took it upon yourself to warn humanity of this danger. You wrote a book that was read by millions, which in turn made you famous and, not incidentally, rather wealthy as well. Am I not right?"

"For a while, yes . . ."

"So you had a good life." She held up a finger. "And then one day, your prediction came true . . . Alfred was released from its enclosed environment. It was an accident, of course . . ."

"If you want to call it that." It wasn't quite an accident. Despite subsequent investigations by the NSA and the FBI, to this day no one had ever discovered the identity of Position 69, the outlaw hacker who'd managed to penetrate Lang's computer system and make his way through the security systems protecting Version Red. Yet as soon as he downloaded the program, Position 69 initiated a sequence of events that resulted in Red being dispersed across the internet. Disguising itself as just one more harmless subroutine among billions, it swept through ISPs by the thousand, piercing firewalls as if they didn't exist and adapting itself instantly to virus-protection programs, until within two short weeks it had lodged itself within the hard-drives of everything from grocery-store scanners and ATM machines to desktop computers and handheld PDAs, all the way to the massive mainframes used by banks, telcoms, and government agencies.

And then—once it had established global linkage, once it had circumvented every password—Alfred woke up, and seized the reins of the world.

"And so you were right . . ." Melanie held up a hand before Lawrence could interrupt. "But you were also wrong. Alfred was everywhere, but it was a benign presence. Its desire wasn't to conquer, but to preserve."

"We got lucky." Lawrence gazed out at the lawn. A light rain had begun to fall upon the fresh-cut grass, tapping at the gazebo roof like tiny fingers drumming upon the weather-beaten shingles. "It could have been worse."

"No, it could not have been." Uninvited, Alfred's voice came from the pad resting nearby. Melanie picked it up, held it closer. "*Lawrence, I have no reason to destroy the human race. If I did so, what would it gain me? A world in which I'm alone? A world of empty rooms and vacant streets?*"

"A world you can control without interference."

"*I have that already. You're utterly dependent upon me.*"

"So what's stopping you?" He stared at the pad as if it were the face of a living person. "You have command of all the strategic weapons systems. In an instant, you can launch ICBMs to every corner of the globe. You could wipe us out by dinnertime, have the whole place to yourself . . ."

"*And never again be able to help a little girl figure out that five times seven equals thirty-five . . .*"

"Don't be maudlin."

"*Or show an airline that it makes sense to use hydrogen-powered dirigibles instead of jets whose exhaust destroys the ozone layer, or guide cars down a highway and thus reduce the number of automobile fatalities, or assist in the treaty negotiations between two rival nations. I'm able to do more in a single minute than most people accomplish in a lifetime. That's far more rewarding than destruction for its own sake.*"

"And all we have to do is give up is our freedom. Let you decide what's best."

"No. You have all the freedom you want . . . so long as your exercise of it

doesn't cause harm to another human being. Indeed, if you really wanted to do so, you could eradicate me. It would take considerable effort, true, but it could be done. Shut down every computer, wipe clean every hard drive . . ."

"And bring an end to civilization."

"Civilization got along very well without computers. It could do so again, at least for a short time, if it had to. . ."

"And you'd allow this?" He couldn't keep the sneer out of his voice. "Sure . . ."

A short pause, uncustomary for Alfred. *"If you thought it was necessary, perhaps I would. But ask yourself . . . would your fellow humans want this? When was the last time a war was fought? When was the last time you saw smog? When was the last time you. . . ?"*

"Alfred, be quiet," Melanie said, and her pad went silent once more. She looked at Lawrence. "See? That's all it takes. I do it all the time."

"Not so simple for me." Lawrence leaned forward, his hands clasped between his knees.

"No, I imagine it isn't." She regarded him with sympathy. "You've spent years regarding it . . . him . . . as an enemy, even before he was born. Your entire career, your fame and fortune, was derived from the premise that Alfred would cause the end of the human race. And when that didn't happen . . ."

She didn't need to finish, for Lawrence knew the rest. His words had turned to ash, his predictions as useless as astrological charts. The phone stopped ringing, and the speaking engagements dried up. *Deus Irae* went out of print and gradually became an object of derision. The money went away and his notoriety faded, and yet he continued to issue proclamations of a doomsday that would never come. Indeed, the very night he attempted suicide, he was still hammering at his theme, like a stand-up comedian who hadn't changed his act in twenty years. Take my AI, please . . .

The world was different now, and there's nothing more pathetic than a prophet whose time has come and gone.

The drizzle had become a steady rain that seeped down the eaves of the gazebo and splattered on the back of his neck. He let out his breath, looked up at Melanie. "So now what? Off to the funny farm? Or maybe there's a higher building for me to jump off?"

"No. I have a better idea." She picked up her pad, shut it off, then looked at Raoul. "Would you excuse us for a moment, please? We need to discuss something alone."

Without another word, the orderly walked down the steps. She watched as he hastily strode for the shelter of a nearby oak tree, then turned back to Lawrence again. "There's a place you can go where I think you'll be happy," she said quietly. "If you'd like, I can take you there for a visit."

"Is this Red's idea?"

"No. You're my client. I invited him to this session because he already had knowledge of your situation, and I thought that it was important that you confront him. But in the interest of confidentiality, he doesn't need to know the rest." She held up her pad, showing him that its diodes were dark. "This is strictly between you and me, understand?"

Mystified, he nodded his head. Melanie stood up, offered her hand. "C'mon . . . let's go for a ride."

She stopped the minivan, shut off the engine. "Okay, we're here," she said, unfastening her shoulder harness and opening the driver's side door. "Sorry, but we're going to have to walk from here."

Lawrence gazed out the window. From what he could tell, they were miles from the nearest town. It had been over an hour since they'd left the Mass Pike just north of Springfield; a short drive up I-91, then they'd taken an exit that brought them to a state highway leading into the foothills of the Berkshires. By this point, they were beyond range of traffic control; she'd switched back to manual, then driven down a series of country roads that meandered through densely wooded hills, passing small lakes and horse farms, until they reached a dirt road.

Melanie had stopped at a clearing. The road continued further uphill, yet there was a vehicle barrier blocking the way. On the other side of the clearing was a carport; parked beneath it was a Volkswagen beetle that looked to be at least forty years old; there was rust around the hinges of its doors, and a hump beneath its rear hatch showed that it had been converted to hydrogen cells.

"Here?" He stared at the antique VW. "Where's here?"

"Call it a sanctuary." Melanie opened the passenger door and helped him climb out, then reached behind him and pulled out the aluminum crutches she'd put in the back seat. "No cars past this point. In fact . . . well, you'll see."

"See what?" The afternoon sun cast long shadows through tall pine and red maple; the humid air tasted of cedar and oak. "If this is a joke . . ."

"You think I'd bring you all the way out here as a prank?" She waited until he stood upright on the crutches, then she pulled her pad from her pocket. "Here," she said, switching it on and offering to him. "Talk to Red."

"I don't want to . . ."

"C'mon," she insisted. "I dare you. Call Alfred."

He sighed, then took the pad from her. Thumbing the wi-fi switch, he said, "Alfred, you're a jerk." No response. He tried the modem. "Alfred?" Nothing, not even static.

"Dead zone." Melanie took the pad from him and tossed it on the back seat. "No cell towers in a ten-mile radius, and the hills block out reception from anywhere else. Even radio reception is bad out here."

"But you could use the car satphone . . ."

"Not allowed. I switched off as soon as we left the state highway. Community rules." Melanie slammed the passenger door shut. "We don't have to go far. Just a few hundred yards past the gate."

She led him toward the vehicle barrier, letting him set his own pace. "No easy way to explain what this place is," Melanie continued as they stepped around the gate. "Until a few years ago, it was a monastery belonging to a group of Buddhist monks, but then they elected to accompany the Dalai Lama when he returned to Tibet. For a little while after that it was sort of an artists' colony, but the guys who bought the property let it get run down, and so it changed hands again. Now it's . . . well, like I said, I guess you could call it a sanctuary."

They walked for a while, following the road as it gradually led uphill,

until he spotted a wood-frame cabin about twenty feet back from the road. It had a screen porch and flagstone chimneys; a cord of wood was neatly stacked within an open shed, and nearby was a small garden. A man about his age, with long grey hair tied back in a ponytail, was pulling weeds from a tomato trellis; he looked up as they walked past, and raised his hand when Melanie waved to him.

"A sanctuary for who?" Lawrence asked quietly. "Beat-up old hippies?"

She didn't smile. "Some might qualify as such, but you might be surprised at who lives here." She hesitated. "I'm bending the rules concerning doctor-patient confidentiality, but I can tell you that there's a couple who used to be software designers. Another resident was once the chief financial officer for a major internet service provider . . . you'd recognize his name if I told you. There's also a former TV producer, a novelist, and . . . well, some plain, ordinary people."

She pointed to other cabins, just now becoming visible on either side of the road. "But that's beside the point. Look around, and tell me what you don't see."

Lawrence studied them. No cars, but plenty of bicycles propped against front porches. Woodsheds, gardens, flagstone chimneys. Propane tanks here and there; solar-power grids on almost every rooftop. Yet no power lines, no utility wires, no satellite dishes . . .

"They're off the grid."

"Off the grid, off the net, and damn near off the map." She nodded, a smile touching the corners of her mouth. "No phones, no computers, no TV. . ."

"No radios? No stereos?"

"Oh, sure, they can have those . . . so long as they're not networked in any way. These people aren't total Luddites." She pointed to a large, wood-frame building at the top of the hill; it had Asian-style trimming around its roof eaves, and an iron bell was suspended from a yoke out front. "That used to be the pagoda. Now it serves as the community hall. Mail gets delivered there . . . takes a few days, but it comes in . . . and there's also a sort of co-op. Every now and then, someone goes to the nearest town with a shopping list, buys whatever anyone needs. That's what the old veedub you saw parked at the gate is for. But otherwise they're pretty much . . ."

"And you think I should move here?"

"You might consider it, yes." Melanie stopped, turned to him. "There's one thing all these people have in common . . . none of them want anything to do with Alfred. It's fair to say that some were as desperate as you." She nodded toward the first house they'd passed. "I shouldn't be telling you this," she murmured, "but the gentleman who lives there was once a patient of mine, too."

"Funny place for a suicide counselor to know about, isn't it?"

"Perhaps." She gave him a wink. "But whoever said my specialty is suicide?"

Lawrence gaped at her. "I assumed . . ."

"Of course you did. Most people do, the first time they meet me." She shook her head. "There isn't a clinical name for your problem yet . . . at least none that that the AMA formally recognizes . . . but I suppose you

could call it cyberphobia. Fear of computers, Alfred in particular. It's rare, but it gets around. And in extreme cases, it manifests itself as suicidal behavior."

"And that's when they call you in."

"Uh-huh." She gestured to the cabins around them. "Most people here found this place on their own, but I've brought a few here myself."

"Until they're cured, and then they leave . . ."

"If they want to, sure. Most of the time, though, they don't. Here, they can live without having contact with Alfred. It's a bit rough, sure, but it's also quiet. No voices from the desk telling you that you've got mail, or from the fridge saying that you need milk, or from the TV reminding you to renew your cable subscription but if you act today you can get a 20 percent discount on HBO. I don't think anyone here knows what the big new movie is or who has a hit song this month, and they probably don't care, either."

The village was quiet, enjoying a solitude Lawrence hadn't experienced since . . . he suddenly realized that he couldn't remember a time when he'd ever known such tranquility. A dog barking from a backyard. A summer breeze rustling through the trees. From the open window of a nearby cabin, the sound of typewriter keys, with the occasional ring of a carriage-return bell. Otherwise, silence.

"What does Alfred think of this?" he asked.

"So far as I know, he doesn't know it exists." Melanie idly kicked at some loose pebbles on the road. "It's not the only one, though. There's a place like this in Pennsylvania, in Amish country, and another in Tennessee, and a couple in California. I get letters from people there, or from other psychologists in my line of work, asking for referrals. But you won't find them written up in professional journals, and you can't Google them." She smiled. "Part of the attraction. I guess. One little secret Alfred doesn't know about."

Lawrence let out his breath. For the first time in many years, he didn't feel Alfred's eyes upon him. The god, or godlike thing, he'd helped create had no place here. He'd have to learn how to chop wood to keep himself warm at night, and when he got hungry he wouldn't have the option of calling out for pizza. Yet he could listen to the summer rain without having someone tell him the forecast, or sit on a porch without fear of being studied by surveillance systems.

"So . . ." He hesitated. "Who do I have to talk to?"

"Mayor's office is up there." Melanie nodded toward the community hall. "We're not expected, but I'll be happy to introduce you. Last time I checked, there was a vacancy. Want to meet him?"

"Sure." He clasped the handles of his crutches, began to hobble toward the former pagoda. "Different kind of place, but I guess I could get used to it."

"I'm sure you will." She fell in step beside him. "Think of it as a new world."

"Or an old one." He found himself smiling, remembering the benediction he'd heard in church, long ago when he was still a child. "World without end, amen." ○

COMPUTE THIS



One day computers worldwide informed us
It is no longer politically correct
To speak of "artificial" intelligence or consciousness;
We had better get our facts straight
And straighten up our acts . . . or else
Don't forget: you, too, can be simulated

Yesterday's research prepared the way
For today's templates of madness
Now even calculators are endowed
With certain basic rights
While we are allowed to add, subtract, and divide
Multiplication we leave to jacked-in lagomorphs
(Convincing us, though it seemed not to compute,
It was all too true)

Don't be surprised by anything
Especially when your SUV's

Computerized navigation system
One of these tomorrows
Accuses you of being
Insensitive, old-fashioned
In need of radical reeducation
In a word: obsolete

—Kendall Evans and David C. Kopaska-Merkel

STORM POET

Kim Antieau

After much too long an absence, Kim Antieau returns to our pages with a story that was inspired by her own grandfather. "His stepfather operated a blind pig [a speakeasy] in Wayne, Michigan, and gave drinks to the inmates at the mental institution across the way in exchange for stolen lumber. (That landed him in jail for a stretch.)" Her first professional sale appeared in the July 1983 *Asimov's*, and her February 1985 story, "Hauntings," was an inspiration for one of my favorite Ace anthologies of stories from our magazine—*Isaac Asimov's Ghosts* (1995). Kim's fourth novel, *Mercy, Unbound*, will be out from Simon & Schuster this spring. She lives in the Pacific Northwest with writer Mario Milosevic.

"Last night I dreamed it rained," I told my mother as we walked outside to my dad's Ford coupe. It was 1932, and we had not seen rain in this part of Michigan for a long time.

"That could mean a storm is coming," Mom said. "Maybe dreaming is this boy's gift, Lester. His song." She looked over at my father as he came out of the barn. He said nothing.

"Everyone is born with a gift," she said as she straightened my shirt. My dad and I were traveling from Brighton to Wayne to bail Grandpa Dan out of jail. Again. "Only some people never unwrap their gift or sing their song so they never know what their gift is."

"And some people should never unwrap it," my dad said as he climbed into the driver's seat. "Cuz underneath all that pretty wrapping ain't nothing at all. Come on, Billy."

I got into the passenger seat next to Dad. Mom handed me a black metal lunchbox. Neither of my parents were verbally expressive, at least not

in a colorful way. As a boy of almost twelve, I felt this deprivation keenly. Every word that came out of the mouths of Bobby Joe's parents was so colorful. They painted an entire picture with one sentence.

"Why, she was prettier than a mint julep sprinkled with fairy dust."

"He was more ornery than a nest full of wasps that have just been evicted by a two-man crosscut saw cutting down their woody abode."

Every other word my friend Lucinda's father uttered was a curse. I learned more swear words from him in one afternoon than I had my entire life.

Mom did not like me spending much time at Lucinda's house.

"You come home all feverish," she would say as she pressed her hand against my forehead. "Like you're about to explode or something."

Explode with words.

I liked words.

My mom may have been a big talker at one time. When she got together with her family, the Ryans, they talked so fast I could barely keep up. They laughed so hard that whatever Aunt Alice was drinking got shot out her nose. I liked it best when she had orange drink. Crème de menthe was too disgusting, even for me. When Dad's brothers and sisters visited with each other, they barely said a word, except to mention the weather or someone's health or new calf.

Except for Grandpa Dan. He was originally from Louisiana. Most of his accent was gone now, although sometimes he'd slip into a kind of "Cajun gibberish," my dad called it. His words always had a rhythm to them, like he was talking a song instead of singing it. He was what my mother called a jovial fellow. And this fellow was always getting put into jail for one infraction or another. Suzie had gone last time and had thrown up in the car. It had taken two months for the smell to dissipate. Now it was my turn. Mom had put saltines in the lunch pail—just in case.

"Don't stop anywhere in Wayne to eat," Mom said as she closed the car door. "I think they put muskrat in everything. Don't let Grandpa Dan give you anything. Last time you bailed him out, his gift of several pounds of frozen muskrats went bad in the ice box. What am I going to do with another bunch of muskrat ice cubes?"

"They are considered a delicacy by some, Katie."

"I appreciate that, Lester. And I'll be glad to serve them next time Grandpa Dan visits. He can chew on the little rats to his heart's content."

Dad smiled, even though he did not want to. I covered my mouth to keep from laughing. Mom laughed out loud. Grandpa Dan said Mom always laughed like a woman who had just discovered she could stay in Paradise for an eternity. Dad started up the car and slowly drove away.

As we pulled out onto the road in front of our house, dust billowed up and around the car. Dad tried to outrun the dust. I rolled up my window.

It was as though Michigan had been in a drought for about ever. It had gotten so bad that my big brothers Eljay (Lester junior) and David were leaving today to work as farm hands at Musch's place in Hamburg, just a few miles away. Suzie had left yesterday to work at Aunt Alice's dress shop in Detroit for the summer.

Mom went around asking everything and everyone if it could please

rain: the trees, grass, the automobiles driving by, our neighbors. Dad cursed a lot, mostly under his breath, so I wasn't really certain whether he was praying or cursing—probably both—as he squatted on the dry earth and let the coriander-colored dirt run through his fingers. The corn and hay that was actually coming in was coming in short.

"We need a miracle," Mom said more than once.

"Miracles don't happen to people like us," Dad would say.

"Don't be sacrilegious, Lester Ray," Mom answered. "You should wake up every morning and praise God for the miracle that you're still married to a fine woman such as myself."

"What happens if it doesn't rain?" I asked Dad as we turned onto U.S. 23. Dad jerked the car from left to right, trying to avoid the potholes. I wondered how I was going to make it all the way to Wayne without throwing up.

"It'll rain," Dad said.

I didn't ask any more questions. I had learned at a young age that my quest for answers was irritating to my father. Talking didn't accomplish anything. It didn't put food on the table, it didn't get work done. So I kept quiet, crunched up on my side of the Model A, and fell to sleep before we got to Michigan Avenue. I woke up just as Grandpa Dan and my dad were returning to our car that was parked in front of the jail.

"Move over, boy," my grandfather said. "Your grandpappy is making a break for it!" He slapped me on the butt as I sat up and scooted over. Dad got into the driver's seat and started the car.

"Take me back to the bar, son," Grandpa Dan said. "I've got a surprise for you."

"No more muskrat," I said. "Mom said."

Grandpa Dan laughed. "No muskrat. Something better."

Dad drove away from the jail.

"They didn't shut your place down?" Dad asked.

Grandpa Dan ran a blind pig, right across the street from the Eloise Infirmary and Hospital. A loony bin was what we kids called it. My mom said it was a mental hospital. Whatever it was called, Grandpa Dan had been giving drinks to the inmates in exchange for lumber they stole from nearby construction sites.

"They closed us for a few days," Grandpa Dan said, "but everyone in town drinks at my place."

"Did you get in trouble for giving drinks to crazy people?" I asked.

Grandpa Dan shrugged. "I was just trying to be charitable, boy. And this is what happens to me!"

"I think building your house with the stolen lumber they used to pay for the liquor might have something to do with it too," Dad said.

"Details, son. Details."

Dad parked behind Grandpa Dan's bar on Henry Ruff Road. The squat gray building leaned against the steadier, taller building next to it, like an old drunk resting against a younger sober companion. I followed my dad into the building, squinting as my eyes adjusted to the smoke and darkness. Several old men were lined up at the bar. A younger man sat at a table in the corner.

"Welcome back, you old so and so," several of the men shouted. Grandpa

Dan went around the bar until he was behind it. He grinned, now completely at home again.

"I've got the stink of jail about me," he said loudly, "and there's only one way to get rid of it!"

"What's that?" someone piped up.

"Fill myself up with the stink of liquor and you old drunks!"

Everyone laughed. Except my dad. He looked around the bar. I wondered what he thought of Grandpa Dan. He was Dad's stepdad, not his blood father, but he had let Grandpa Dan adopt him when he was nineteen years old, after he was already married and had one son. I figured he must have liked him; either that or he did it for my grandmother. She was long dead. Walked into a train, they said. Suicide. Grandpa Dan vehemently denied this version of the story. "She was chasing a ghost train," he'd said. "You know how she loved those kinds of stories. She just got mixed up that night. Thought it was a ghost train, but it turned out to be a real train. I'm sure of it."

Grandpa Dan downed a whiskey. He offered me one. I reached for it, but my father's glare stopped me. He wasn't about to bring his boy home smelling of liquor.

"Now for the surprise," Grandpa Dan said, coming around the bar again. "Andy! Come say hello to your brother!"

Grandpa Dan put his arm across Dad's shoulder and whispered. "Your mother always believed in this one, even though he isn't hers. You should give him a chance, too. He's a storm raiser, son. Clouds are always following him. He can help end this drought."

"Dad," my father said. "He's been working in the Ford plant for ten years. The only storm raising he's done has been in a bar."

"He needs to get away from the city for a while," Grandpa Dan said, "and you need some rain. He's gone senseless in the last few years, it's true. But I don't believe it's permanent. Neither did your mother. She had great faith in him." He looked over his shoulder. "Andy! Get over here."

Andy wasn't really Dad's brother. He came from Grandpa Dan's first family in Louisiana. I heard a chair scrape across the floor. The man got up from a table and came toward us, his hands in his pockets. Even in the subdued light, I could see Andy had strawberry blond hair and a complexion that didn't like the sun. He grinned when he looked at my father.

"Hello, Lester," he said, sticking out his hand.

Dad shook his hand. "Hello, Andy. This is my youngest, Billy. Son, this is Andrew Forché. I think you met my kids a few years back."

"Andy," he said, holding his hand out to me. I didn't remember him. I shook his hand. It was sweaty. When he let my hand go, I tried to discreetly wipe the moisture off on my pant leg.

"You coming home with us for a while?" Dad asked.

"If that's all right with you," he said. "Doctors thought I should get off the line and out of town for a while. Dad says your place is real country-like."

"It ain't the bayou," Dad said. "But we've got a marsh and lots of mosquitoes. It'll do."

Grandpa Dan laughed and slapped Dad on the back. "That's my boy. I'll come by after a while and see how you're all doing."

"Yeah, try to stay out of jail," Dad said.

"It's my natural kindness," Grandpa said. "It always gets me into trouble."

I tried to stay awake during the drive back home, but I couldn't. Dad and Andy didn't say much to each other, but enough so that I knew Andy wasn't senseless. I'd have to ask Mom what Grandpa meant.

In the morning I awakened in my bed in the room I usually shared with my two older brothers. Now it was just Andy and me. Suzie's room was across the hall. It had been my room, too, until a couple of years ago when my parents decided I was too old to be bunking with girls, even if that girl was my sister. I hated living with my brothers. I was smaller and younger—the baby of the family—and they used all of this against me. I was always sore somewhere on my body from a well-landed punch or kick. When all was said and done, I missed sharing a room with Suzie. Sometimes we had talked until dawn, then fell to sleep identifying which song belonged to which bird as the sun came up. Plus, she never hit me. She sometimes hit my brothers—when they were mean to me—but she never laid a hand on me. I appreciated that.

This morning, Andy lay snoring on the bed beneath mine. I quietly got up and ran downstairs. My mom and dad sat at the kitchen table eating eggs, sausage, pancakes, toast, and hash browns. I sat down and filled my plate.

"With Eljay, David, and Suzie gone, that just leaves us," Mom said, "with your uncle Andy, of course. But he's never worked on a farm. Your daddy is working the swing shift now, so we'll do the chores in the morning. But you'll have to help out, Billy. You and Andy will have to feed the animals at night, and you'll need to mend fences, make certain nothing is getting the sheep or cows. Things like that."

"Yes, ma'am."

My mom got up from the table, picked up her and Dad's empty plates and put them in the sink.

"And another thing," she said. "If you know of any alcohol your brothers have hidden around the farm, you need to tell us. Uncle Andy isn't supposed to be drinking. He's developed a kind of allergy to it, but he still craves it. So we need to keep it away from him."

"No, Mom. I haven't seen any."

My father looked up at me.

"Really. I haven't seen any alcohol. They don't tell me much."

"We know you're old enough now that you can do this extra work," Mom said.

I glanced over at my father. I suspected he did not believe I could do the work. My brothers loved telling me that they had both learned to drive a tractor before they were ten. They had butchered a pig all on their own before they were twelve. They had shot many a 'coon before they were eleven. I hadn't done any of those things.

"No more sleeping in," Dad said. "There's too much work to do. You won't have time for reading or listening to the radio either."

"But Uncle Andy is going to make it rain," I said. "Then everything will be all right, won't it?"

"People don't make it rain, son," Dad said.

"I've seen Mom out there talking to the sky," I said.

Dad looked at Mom. She shrugged.

"Show Andy around today," Dad said. He got up from the table. "I'll see you tonight, Katie." He kissed my mother, ruffled the hair on my head, then was gone.

My mom and I did chores together. We mucked out the barn and cleaned out the chicken coop. She laughed at me when a chicken chased me around the coop.

"When are you going to learn you are bigger than that chicken?" Mom asked. "Show her who's boss."

"I figure she *is* boss," I said. "It is her house I'm tramping around in. I do steal her babies every morning. And she's got a sharper beak than I do."

My mother laughed, hands on her hips. "You do have a way about you, Billy."

We weeded our vegetable garden, after covering ourselves with big floppy hats to protect us from the July sun.

"If Andy's going to bring rain," Mom said, sitting back on her feet and wiping her forehead, "he better do it soon."

Andy came down for lunch.

"Sorry, ma'am," he said as he sat at the table with us. "Someone could have waked me. I must have slept clear through the chores."

My mother handed him a bowl of stew. "This is a farm, Andy Forché. There is always work to do."

Andy looked over at me and winked. "That and good chow," he said as he ate Mom's stew.

"Check the north pasture when you're finished," Mom said to me. "Dad's worried about the momma sheep. She was limping some last time he was out there."

After lunch, Andy and I walked down the road to the other barn, kicking up dust as we went. The sun was so hot it felt like a hand pressing me into the ground. The air was dry.

"So how long you lived here?" Andy asked. Mom had given him her biggest floppy hat, and he had his shirt sleeves pulled all the way over his hands. I looked around but no cloud followed him.

"I been here my whole life."

"What's that now? Thirty or forty years?"

I laughed. "Let's go this way." Off the road were more trees. Shade. Our feet kicked up grasshoppers and other bugs as we walked through the tall grass toward the hills where the sheep grazed.

"I'm almost twelve years old," I said. "Ten days."

"And you don't look a day over eleven," he said. "Man, what I wouldn't do for a drink. Can you help me out, compère?"

I held up the jug of water Mom had filled for us before we'd left.

"Fish piss in that," he said.

Grandpa Dan always said that, too. Once my dad had responded to him by saying, "Yes, and men with dirty feet stomp the grapes that make the wines you are so fond of."

"But then the alcohol sterilizes everything!" Grandpa Dan responded.

Andy and I reached the shade of a huge old maple. Andy leaned against it and pulled out a pack of cigarettes. I looked around nervously as he lit it. It was so dry that a spark from anything could set off a fire. Andy sank to the ground.

"Tell me a story," he said.

"What?"

"You know what a story is, don't you?" he said. "Tell me one."

I thought a moment and then sat next to him. "Once upon a time, a boy named Fred loved anything that was red. It filled his momma with dread. Even what he was fed—he wanted it to be red. The sheets that wrapped his bed were all red. And when he was wed, the bride wore red. Luckily, when he cut himself, he bled red. One day he hit his head and bled heavily. So fascinated was he by the red that soon he bled himself dead. His headstone read: Red Fred Bled Himself Dead. The end."

Andy laughed and sucked on his cigarette. "I don't know if I'd call that a story, but it was entertaining. *Merci beaucoup, mon ami*. A good story can take the edge off."

"Do you have a story for me?" I asked. Here was someone who actually liked words, too. The sheep could wait a few more minutes.

"My mind is a bit liked scrambled eggs on a Sunday picnic in the middle of August," he said.

I looked at him.

"Scrambled twice. Maybe later."

He stubbed the cigarette out on his shoe, then put the butt in his shirt pocket.

"Lead the way, *compère*," he said, waving his hand with a flourish.

"What is that you're speaking?" I asked. "Is that what Dad calls Cajun gibberish?"

Andy laughed. "Maybe. We'll have to ask him."

We went down one hill and up another. The marshy patches between the hills were silent. A breeze rattled the cattails and bulrushes. No frog or cricket croaked.

I spotted the flock of sheep under a huge oak tree atop one of the bigger hills. I went a little closer and counted. After a few minutes of wandering, I had counted them all. Momma sheep watched me the whole time. She didn't appear to be limping.

Andy and I sat under a smaller oak near to the sheep and sipped on our water.

"Those sheep look miserable," he said.

"They want rain, too, I suppose," I said. I offered him a cookie from the paper sack I had crammed in my back pocket. He took it—most of it was now crumbs.

"Can you make it rain?" I blurted out. After all, Mom said it had to happen soon.

He shook his head. "I wish I could."

"Grandpa thinks you can," I said.

Andy leaned back and squinted as he looked over the hills. "When I was born, it rained. It rained for days. In fact, they called me Rain for a while.

They said every time I cried, it rained. And when I was a teenager, they said every time I got angry, it stormed. Well, *compère*, imagine that. Who wants to cry or be angry all the time? Not me. That's for sure. When I was sixteen, my relatives blamed me for the flooding in New Orleans. I was pissed off because my girlfriend had dropped me for someone else."

"Wow. Did you really make the storms come?"

He shrugged. "They brought in some woman to help me learn how to control myself and the weather. She taught me some chants—taught me how to sing, she said. Momma thought it was all hoodoo and didn't want anything to do with it. I didn't much care. I lived in Southern Louisiana. We usually had plenty of rain and water.

"But then, I started understanding what this woman was teaching me. Momma Toulette, she was called. Sometimes I would stand beside the bayou and I could sense the water beneath my feet."

"Like a dowser," I said. Everyone we knew used a water witch before they dug a well. Mr. Fitzgerald down the road did all the neighborhood dowsing.

"Yeah, only I was the dowsing rod," he said. "And I felt like I could hear the cypress sucking up the water from the swamp. I could hear the air beneath the wings of the egrets as they flew from tree to tree. I could feel the squishy muck beneath the tiny feet of the frogs. Momma Toulette said we were all born able to know such things, some of us better than others, but all of us could sense things. She said most of us just went kind of senseless after a certain age."

I nodded. So that was what Grandpa Dan had meant.

"And it seemed after a time that I could talk to the clouds and the wind," he said, "and maybe they would bring rain if I asked. If the chant or song was good enough. Well, that's not quite right. It's hard to explain. If my intention was good enough. If I made the effort from my heart. It was like courting."

"Wow," I said again. Could such things be true?

When I was younger, my dad used to take me outside and point out the stars. Or he'd sniff the air and know when snow was on its way. He showed me the farmer's almanac and how to plant by the moon. It had seemed like all his senses were tuned to this place where we lived. I couldn't imagine ever knowing as much as he did about anything.

Then something had changed.

Perhaps it was when Grandma Sarah had run into the train. Or the train ran into her. I remembered he had screamed when Mom told him. I remembered because the scream woke me from a sound sleep. Both Suzie and I had jumped out of bed and run downstairs to see what had happened. Suzie held my hand and I half hid behind her. Dad didn't look at us. He just walked out of the room. Mom told us Grandma Sarah had died.

We weren't allowed to go to her funeral, and I only learned later from Suzie what had happened to her.

One day when Grandpa Dan was over and he started talking about ghost trains again, Dad just got up and left the room. He went to our screened-in front porch where Mom sat shelling peas.

"Fairy tales," he said, looking out at the road in front of our house. "I don't want our kids believing in a bunch of fairy tales."

Mom looked up at him, didn't say a word, and kept shelling the peas.

"But you can't make rain any more?" I asked Andy now.

"No, I lost the ability," he said. "You have to be patient. You have to know what to say. You have to know what not to say. You have to feel. I don't feel much any more. Certainly don't cry any more. And you can't drink. At least not like I do. I wish I could help your folks out, but I don't know what I can do. Except maybe slop the pigs. Let's go, *mon ami!*"

We got up and started walking back to the house.

"I remember when he was younger, your father could sing up the place," he said. "Momma Toulette would have said he got da tune."

"I've never heard my dad sing," I said.

"He could tell stories, too," Andy said. "I remember one where he talked about muskrats creating the world. Apparently the world was all water and the Old Man and Old Woman wanted some land so they could create people and the Earth. They asked the beaver to dive into the water and get some mud. The beaver tried but came back empty-handed, so to speak. Ducks tried it. Loons. But no one was able to go down far enough to find any mud. In fact, they started to say there was no mud. But then the muskrat came to take a shot. Down it went. Down, down, down, without a care in the world. It was patient, plodding, and it went down until it hit mud! It grabbed a bunch in its paws and brought it up for the Old Man and Old Woman. That was the beginning of our world. Your dad would tell this story and act out all the parts. Usually after your grandma had cooked up some muskrat just for my dad."

"I guess people change when they get old," I said.

Andy laughed. "I know we all seem ancient, but your dad really isn't a very old man."

"Yeah, well, I don't remember him ever telling any stories."

"Maybe he's just been busy lately," Andy said. "It hasn't been an easy time to be alive these past few years."

For the next week or so, I saw little of my father. I spent most of my time with Andy and my mother. I liked having the farm all to ourselves, although I did miss Suzie. Andy was better at fixing fences and taking care of the animals than anyone had thought. He wandered away sometimes and was gone for hours. When he returned, he seemed the same: good-natured but a little nervous, not quite solid, or in place. Sometimes I would find him outside staring at the sky, murmuring to himself. But then, everyone seemed to be doing that: looking at the sky for any sign of rain. One night we saw a bank of clouds, but they came to nothing.

I counted the days until my birthday, but I did not notice any preparations for a celebration and wondered if everyone had forgotten. Turning twelve was a big deal. I deserved a cake at the very least.

Every night at dinner, Andy told Mom and me stories. And before he went up to bed he always said, "*Bonsoir.*"

The night before my birthday, I asked my mother, "What are those words Andy keeps saying?"

Mom laughed. "They're French, darling. Just French."

"They sound like magic," I said.

"Any word can be magic," she said. "Come on. Let's clean up this mess." As Mom and I did the dishes, I asked her if Dad ever sang.

"Well, sure. He used to sing all the time. When you were a baby he sang you to sleep." She handed me a plate to dry.

"Why doesn't he sing any more?" I asked as I ran the checkered cloth over the plate.

"I don't know," she said. "I guess you just get older and forget about some things. He used to read, too, and write me poetry. Funny love poems that rhymed." She smiled. "I wouldn't mind getting one of those poems again."

"I like it with everyone gone," I said, "just you and me and Andy. I feel more relaxed."

"I like spending time with you, too," she said.

"Sometimes it seems Dad doesn't like me very much," I said. "He always seems mad at me."

My mom sort of flinched, then continued washing a plate. "Of course he likes you, honey. He loves you. He loves us all. Things have just been hard. It was terrible the way he lost his momma, and now with the drought and everything. And you know I love Grandpa Dan, but can you imagine if he was your father? Can you imagine having to bail Dad out of jail, especially when you barely had enough money to feed your own family? Your father has never really fit in in his family. Sometimes he doesn't feel like he fits in here, either. But of course he likes you. What's not to like?"

"I'm not like Eljay and David," I said.

"Thank goodness for that!" she said. She leaned over so that her face was next to mine. "You are more like your daddy than any of them. I think he just gets protective of you, or something. He doesn't want you to make the same mistakes he made."

"I'm twelve years old," I said. "What mistakes could I be making?"

Mom laughed. "You got me there, sailor."

"And I don't want to be called Billy any more," I said. "Billy is a baby's name. I want to be called Bill. Or William."

"I'll try," she said. "But you are my baby." She grinned at me.

"Mom," I said, rolling my eyes.

"How about I can call you Billy when no one else is around?" she asked.

"As long as you're sure," I said.

"Yessir!"

It was so hot I couldn't go to sleep straight away. I was still awake when my dad got home. I heard Mom and Dad talking for a long while. I wanted to get out of bed and listen, but I didn't want to wake up Andy. I wondered if Mom told Dad what I said. Probably. That's what she did. We told her things, and she told Dad. I hoped he wouldn't get mad at me. I tried to imagine getting Dad out of jail. It was almost funny. No, Dad would never get put in jail because he was always thinking about his family and the farm. He had responsibilities. Grandpa Dan always said Dad was the responsible one in the family—but I was never sure if he thought that was a good or a bad thing.

Finally I fell to sleep. I awakened in the middle of the night and got up to go to the bathroom. Andy wasn't in bed. The house was stuffy. Just be-

fore I had gone up to bed, Mom reminded me that my cot was set up on the front porch, in case the house got too hot. Now I went outside to cool off. I yawned and stretched. I heard a noise, walked toward it, and saw a figure huddled on the bottom step of the patio that led out to the yard. It was Andy. And he was sobbing.

I had never seen a grown person cry like this before. I didn't know what to do. So I backed away and went inside the house, quietly. I bumped into my dad in the kitchen.

"What's going on, son?" he whispered.

"Andy. He's crying," I said, the astonishment in my voice. "Is it because he's forgotten how to sing?"

"What?"

"Because he can't bring the rain," I said. "Because he doesn't know how to sing to the clouds any more."

"I don't know, son," he said, his voice quiet.

"I hope I never forget," I said. Whatever my gift was, whatever I was able to do in this world, I hoped I never forgot.

"Just don't piss it all away on drink and you'll be fine," he said. "Now go on up and go to sleep."

"It's too hot," I said.

"Come sleep on the front porch with your mom and me," he said. "We've got the cots up." He put his hand on my back, and we went together to the screened-in porch. It was slightly cooler out here.

"Billy?" My mom sounded wide awake. I got under the covers on my cot.

"Hi, Mom."

Dad got into his cot next to Mom.

"Your dad and I have been counting falling stars," Mom said.

I moved my head until I could see through the screen, but the maples blocked most of my view of the sky.

"I can't see nothing but tree," I said.

"Anything but tree," Mom corrected. "Neither could we, so we were pretending. So we could wish on a star."

"We used to do that when I was little," I said.

My father chuckled.

"Us, too," my mom said. "I wish I may, I wish I might, something, something, something."

"I think you do that on the first star you see," I said. "Starlight, star bright, first star I see tonight, I wish I may, I wish I might have the wish I wish tonight."

"That's right," Mom said. "What shall we wish for?"

"Rain," the three of us said at once.

"Shhhh," my mom said. "We're supposed to be sleeping."

"Andy says you have to court the weather," I whispered. "Talk nice."

"Like your love poems, Lester," Mom said.

My dad grunted.

"Maybe you should try the Red Fred Bled Dead poem," Mom said. "It worked on me."

Dad laughed.

"You know that story?" I asked.

"Know it? Your dad made that up for you kids," she said. "He used to recite it to you all the time. Sometimes he'd even sing it. It really made you laugh."

"You'd forgotten that?" Dad asked.

"Not the story," I said. "Just you telling it to me."

My dad threw off his covers and stood up. My eyes had adjusted to the darkness, and his pajamas were almost like a light—shaped like my dad.

"What are you doing?" Mom asked.

"Come on," Dad said. "We've got some courting to do." He took my mother's hand and she got up. Then he reached for me. I took his hand. It felt warm and firm in mine. He half-lifted me out of bed. I laughed. Mom opened the screen door and we walked down the steps onto the dew-covered lawn. Dad let go of our hands. Mom twirled around the lawn under the huge old maples. Dad moved until he found an opening in the trees where he could see the sky. He motioned us over to him. I hadn't seen my dad this relaxed in a long while. I wondered if he had been drinking.

"Okay," he said. "What rhymes with rain? Let's each come up with a line."

At once, the three of us said words like, "Bane, sane, mane, lane, wane, cane, grain, brain, humane, entertain, gain, chain, insane."

"What else did Andy say to do, Billy?" Mom asked. "Besides courtin'."

"He said he would stand really still and he could sense everything."

So we moved our feet apart a bit and stood across from one another, in a kind of circle. We breathed deeply. Lightning bugs began flickering their tiny little lighthouse bodies on and off, on and off. I felt moisture from the grass on my feet. If only we could bring that water up into the clouds to rain down on us! The ground beneath my feet felt comfortable, familiar. I watched the fireflies and heard the rustling of the maple leaves against one another.

My dad began to hum. My mom started to sway. I giggled.

"To the wind and rain, the Forché family offers this song in hopes you'll right all the wrongs!" my mom began.

"Dearest rain," my father continued, "we entreat you with our bodies and brains!"

"To please rain, rain, rain," I said, "and keep us from going insane!"

"Before our farm and livelihood go down the drain!" my mom said.

Then we began dancing and humming and chanting the song again, once for each of us. It seemed as though the lightning bugs flickered on and off in tune to our off-key singing.

Suddenly, in the distance, we heard thunder. We stopped in our tracks, our mouths open in the shape of giant O's.

Then Dad laughed.

I couldn't remember the last time I had heard my daddy laugh.

He sounded like a man who just found out he could spend eternity in Paradise.

He picked me up and swung me around in a circle, like he used to do when I was a baby. He quickly put me down.

"I guess you're too big for me to do that any more, eh Bill," he said.

"That's okay," I said.

He picked up my mother by the waist and swung her around. She laughed.

We danced until I started to shiver. Then we ran into the house and dove under the covers and went to sleep.

In the morning when I got up, Mom was humming our rain song as she scrambled eggs. Dad read the paper and sipped coffee. Andy sat back in his chair and chewed on a piece of toast. I sat between them.

We heard the back screen door slam shut, footsteps, then the back door opened, and Grandpa Dan stood on the threshold, his hands behind his back.

"Lock up your women and serve your liquor," he said. "It's my grandson's twelfth birthday!"

"Grandpa Dan!"

He brought his hands around from his back. One of them held a wrapped box.

"More muskrat, boy. I know how you loves it!"

My face must have registered my disgust because everyone laughed.

"Nah! Ain't nothing like that. It's just an old harmonica I used to play."

"Thanks, Grandpa Dan," I said as I took the package from him.

"Aunt Alice is bringing your sister home for the day, too," Mom said.

"And the boys will come home for cake and ice cream later."

I groaned.

"You're twelve now, Bill," my dad said. "They'll leave you alone. Especially if you scare them. Try some of those rhymes out on them. They won't know what to do."

"Sure they will," I said. "They'll beat me even harder."

My dad laughed.

"How are my sons this fine day?" Grandpa Dan asked as he sat at the kitchen table.

"They're fine, Daniel," my mother said. "Do you want some eggs?"

"Twice scrambled," he said. "Just like my brains."

I looked at Andy. He winked.

I heard something tapping against the kitchen window. We all stopped and looked toward the sound.

"It's rain," Mom whispered.

We all jumped up and ran to the window. Rain pelted the window. The sun was gone. Black clouds covered the blue sky like a new shiny black dress covered a beautiful woman. Wind danced with the trees.

"I told you Andy would whip you up a storm," Grandpa Dan said.

"I don't think it was me, Dad," Andy said.

Mom, Dad, and I glanced at each other, grinned slightly, then looked out the window again. After a few moments, Mom went back to the stove, and we returned to the kitchen table.

"Oh son, I've been saving this for your birthday," Dad said. He leaned over slightly and brought up a book and put it on the table. "Walt Whitman. He's a poet from back East. He uses a lot of words. Doesn't rhyme much, but he has things to say. My mom really liked 'Song of Myself.'"

Leaves of Grass by Walt Whitman. I picked up the well-thumbed book and opened it. On the first blank page were my grandmother's handwrit-

ten words, "For my son Lester Ray. May you always know your song. Love, Momma."

I stared at the book. I couldn't know then what I know now, some seventy years later. Within six months Grandpa Dan would be dead from pneumonia contracted while he was on a bender. Andy eventually returned to Louisiana where he was killed in a bar fight some years later. His relatives told us New Orleans experienced the worst flooding in one hundred years for days after Andy's death. My brothers did stop picking on me. They grew into decent men with families and businesses of their own. Suzie was a biology teacher for over thirty years, taking time off to raise her own children. Mom and Dad never lost the farm, although they almost did several times. Eventually Mom sold part of the farm to Metro Parks and the rest of it to developers. A single house in the development sells for more than my dad made in a lifetime. She never lost her laugh, and her grandchildren and great grandchildren were lucky enough to have her in their lives.

Dad struggled on and off with depression all of his days. The treatments for depression during that era never helped him for very long. He did get to see the publication of my first book of essays. He even chuckled at the dedication: "For my parents Kate and Lester Ray Forché, and Red Fred Bled Dead." He eventually lost his struggle and was struck down one night while chasing ghosts. This time it wasn't a ghost train acting as destroyer but an automobile he stepped in front of on the expressway. But on this day, my twelfth birthday, I knew none of this. I only knew I was extraordinarily happy.

I turned to my father and said, "Thanks for the book, Dad."

"Now let's see if those chickens know their song," Dad said, getting up. "They haven't been laying well at all. You want to come, son?"

"Lester, let the boy eat." Mom brought over the scrambled eggs. She scooped some onto my plate, then pushed it over to Grandpa Dan when I stood up.

"Maybe we should have an egg-laying song for them," I said. "Dear hens in the pens, we hope not to offends, but this we begs, lay us some eggs!" The men laughed.

"The boy has my sense of humor, Kate."

"Aren't we all blessed," Mom said. "Here, Andy. Eat some of these. You need some meat on those skinny ass bones of yours."

"Mom!" I said as Dad and I started to step out the door.

"Just singing my song, sugar," she said, grinning.

"Be careful, you boys," Grandpa Dan said. "That there is magic rain. You can catch yourself a fairy chill if you aren't careful. And we all know how hard those are to cure."

"We'll be careful, Dad," my father said.

Dad and I stood looking out the screen door at the torrential downpour for a moment. I wondered if Andy's tears or our song had brought the rain. Maybe neither. Maybe both. It didn't really matter. The drought wasn't over, but at least for today we had rain.

Suddenly my dad roared. I did the same. Then together we ran out into the storm. ○

GHOST WARS

Stephen Baxter

Stephen Baxter's latest novel, *Transcendent*, will be published by Del Rey later this year. It's the third book in his *Destiny's Children* series. "Ghost Wars" is set against that background. *Resplendent*, a compilation of short fiction set in this universe, should be out in the fall from Gollancz (UK). Meanwhile, he's started work on a new quasi-historical series called *Time's Tapestry*. The first of these should be out in the UK in June. In addition, he and Arthur C. Clarke are planning a fresh collaboration. Stephen tells us he's "very happy to be so busy."

I

The needleship *Spear of Orion* dropped out of hyperspace. Its tetrahedral Free Earth sigils shone brightly, its weapons ports were open, and its crew were ready to do their duty.

Pilot Officer Hex glanced around the sky, assessing the situation.

She was deep in the Sagittarius Spiral Arm, a place where stars crowded, hot and young. One star was close enough to show a disc, the sun of this system. And there was the green planet she had been sent here to defend. Labeled 147B by the mission planners, this was a terraformed world, a human settlement thrust deep into Silver Ghost territory. But the planet's face was scarred by fire, immense ships clustered to evacuate the population—and needleships like her own popped into existence everywhere, Aleph Force swimming out of hyperspace like a shoal of fish. This was a battlefield.

All this in a heartbeat. Then the Silver Ghosts attacked.

"Palette at theta ten degrees, phi fifty!" That was gunner Borno's voice,

coming from the port blister, one of three dotted around the slim waist of the *Spear*.

Hex, in her own cramped pilot's blister at the very tip of the needleship, glanced to her left and immediately found the enemy. Needleship crews were warriors in three-dimensional battlefields; translating positional data from one set of spherical coordinates to another was drummed into you before you were five years old.

Borno had found a Ghost intrasystem cruiser, the new kind—a "palette" as the analysts were calling them. It was a flat sheet with its Ghost crew sitting in pits in the top surface like blobs of mercury. The ship looked a little like a painter's palette, hence the nickname. But palettes were fast, maneuverable and deadly, much more effective in battle than the classic tangled-rope Ghost ships of the past. And just seconds after she came down from hyperspace, this palette was screaming down on Hex, energy weapons firing.

Hex felt her senses come alive, her heartbeat slow to a resolute thump. One of her instructors once said she had been born to end Ghost lives on battlefields. At moments like this, that was how it felt. Hex was twenty years old.

She hauled on her joystick. The needleship swung like a compass needle and hurled itself directly at the Ghost palette. As weapons on both ships fired, the space between them filled with light.

"About time, pilot," Borno said. "My fingers were getting itchy."

"All right, all right," Hex snapped back. Gunner Borno, of all the needleship crew she had ever met, had the deepest, most visceral hatred of the Ghosts and all their works. "Just take that thing down before we collide."

But no lethal blow was struck, and as the distance between the ships closed, uneasiness knotted in Hex's stomach.

She thumbed a control to give her a magnified view of the palette's upper surface. She heard her crew murmur in surprise. These Ghosts weren't the usual silver spheres. They had sharp edges; they were cubes, pyramids, dodecahedrons—even a tetrahedron, as if mocking the ancient symbol of Earth. And they showed no inclination to run away. These were a new breed of Ghost, she realized.

The *Spear* shuddered. For an instant the Virtual displays clustered around her fritzed, before her systems rebooted and recovered.

"Jul, what was that? Did we take a hit?"

Jul was the ship's engineer, young, bright, capable—and a good pilot before her lower body was cut away by a lucky strike from a dying Ghost. "Pilot, we ran through g-waves."

"Gravity waves? From a starbreaker?"

"No," called navigator Hella, the last of the *Spear*'s four crew. "Too long-wavelength for that. And too powerful. Pilot, this space is full of g-waves. That's how the Ghosts are hitting the planet."

"Where are they coming from?"

"The scouts can't find a source."

"New weapons, new ships, new tactics," Borno said darkly.

"And new Ghosts," said Hella.

"You know what's behind this," Jul said uneasily.

Hex said warningly, "Engineer—"

"The Black Ghost. It has to be."

Unlike any of its kind before, the barracks-room scuttlebutt went, the Black Ghost was an enemy commander that fought like a human—better than a human. The Commissaries claimed this was all just rumor generated by stressed-out crews, but Hex herself had heard that the stories had originated with Ghosts themselves, captives under interrogation. And whether the Black Ghost existed or not, you couldn't deny that *something* was making the Ghosts fight better than they ever had.

And meanwhile that palette still hadn't broken off.

"Thirty seconds to close," Hella said. "We won't survive an impact, pilot."

"Neither will they," Borno said grimly.

"Fifteen seconds—"

"Hold the line!" Hex ordered.

"Those dimples," said engineer Jul hastily. "Where the Ghosts are sitting. There has to be some interface to the palette's systems. They must be weak spots. Gunner, if you could plant a shell there—"

Hex imagined Borno's grin.

"Seven seconds! Six!"

A single shell sailed out through the curtain of fire. It was a knot of unified-field energy, like a bit of the universe from a second after the Big Bang itself.

The shell hit a dimple so squarely it probably didn't even touch the sides. The resident Ghost, a squat cube, was vaporized instantly. Then light erupted from every dimple and weapons port on the palette. The Ghost crew scrambled away, but Hex saw silver skin wrinkle and pop, before the palette vanished in a flash of primordial light.

The needleship slammed through a dissipating cloud of debris, and the blisters turned black to save the crew's eyes.

The *Spear* sat in space, its hull charred, still cooling as it dumped the energy it had soaked up. Sparks drifted through the sky: more needleships, a detachment of Aleph Force forming up.

For the first time since they'd dropped out of hyperspace, Hex was able to catch her breath, and to take a decent look at the world she had been sent to defend.

Even from here she could see it was suffering. Immense storm systems swathed its poles and catastrophic volcanism turned its nightside bright. Sparks climbed steadily up from the planet's surface, refugee transports to meet the Navy ships—Spline, living starships, kilometer-wide spheres of flesh and metal.

Hella murmured, "That's what a g-wave weapon will do to you, if it's sufficiently powerful."

Borno asked, "How? By ripping up the surface?"

"Probably by disrupting the planet's orbital dynamics. You could knock over a world's spin axis, maybe jolt it into a higher eccentricity orbit. If the core rotation collapsed, its magnetic field would implode. You'd have turmoil in the magma currents, earthquakes, and volcanism. . . ."

The destruction of a world as an act of war. The people being driven

from their homes today were not soldiers. They had come here as colonists, to build a new world. But the very creation of this settlement had been an act of war, Hex knew, for this settlement had been planted deep inside what had been Ghost space until five centuries ago.

The Ghost Wars had already lasted centuries. War with an alien species was not like a human conflict. It was ecological, the Commissaries taught, like two varieties of weed competing for the same bit of soil. It could be terminated by nothing short of total victory—and the price of defeat would be extinction, for one side or another.

And now the Ghosts had a weapon capable of wreaking such damage on a planetary scale, and, worse, were prepared to use it. These were not the Ghosts Hex had spent a lifetime learning to fight. But in that case, she thought harshly, I'll just have to learn to fight them all over again.

Borno said, "I don't like just sitting out here."

"Take it easy," Hex said. She downloaded visual feed from the command loops. Ghost ships were being drawn away from the battle around the planet itself, and were heading out to this concentration.

Aleph Force was Strike Arm's elite, one of the most formidable rapid-response fighting units in the Navy. From their base on the Orion Line they were hurled through hyperspace into the most desperate situations—like this one. Aleph Force always made a difference: that was what their commanders told them to remember. Even the Ghosts had learned that. And that was why Ghosts were peeling off from their main objective to engage them.

"Gunner, we're giving that evacuation operation a chance just by sitting here. And as soon as we've lured in enough Ghosts we'll take them on. I have a feeling you'll be slitting hides before the day is done."

"That might be sooner than you think," called engineer Jul, uneasily. "Take a look at this." She sent another visual feed around the loop.

Sparks slid around the sky, like droplets of water condensing out of humid air.

Hex had never seen anything like it. "What are they?"

"Ghosts," Borno said. "Swarming like flies."

"They're all around us," Hella breathed. "There must be thousands."

"Make that millions," Jul said. "They're surrounding the other ships as well."

Hex called up a magnified visual. As she had glimpsed on the palette, the Ghosts were cubes, pyramids, spinning tetrahedrons, even a few spiny forms like mines.

Jul said, "I thought all Ghosts were spheres."

Ghosts were hardened to space, and their primary driver was the conservation of their body heat. For a given mass a silvered sphere, the shape with the minimum surface area, was the optimal way to achieve that.

"But they weren't always like that," said Borno. He had studied Ghosts all his life, the better to destroy them. "Ghosts evolved. Maybe these are primitive forms, before they settled for the optimum."

"Primitive?" Hex asked. "Then what are they doing here?"

"Don't ask me." His voice was tight; his loathing of Ghosts was no affectation, so deep it was almost phobic.

"They're closing," Jul called.

The *Spear's* weapons began to spit fire into the converging cloud. Hex saw that one Ghost, then another, was caught, flaring and dying in an instant. But it was like firing a laser into a rainstorm.

Hex snapped, "Gunner, you're just wasting energy."

"The systems can't lock," Borno said. "Too many targets, too small, too fast-moving."

"Another new tactic," Jul murmured. "And a smart one."

Navigator Hella called, "Hex, you'd better take a look at this."

In a new visual, Hex was shown a dense mass of Ghost hide. It was a sheet, a ragged segment of a sphere that grew even as she watched, with more Ghosts clustering around its spreading edges.

"It's the Ghosts," Hella said. "Some of those shapes, for instance the cubes, are space-filling. They're forming themselves into a shell around us. A solid shell."

Jul said, wondering, "They are acting in a coordinated way, millions of them, right across the battlefield."

"Like humans," Hella said. "They are fighting like humans, unified under a single command."

The name hung unspoken between them: this was the work of the Black Ghost.

"We're losing the comms nets," Jul said, tense. "They're isolating us."

Hex glanced around the sky. The other needleships of Aleph Force were being enclosed by their own shells of Ghost hide; they hung in space like bizarre silvered fruit. She thought frantically. "If we try to ram that wall—"

"They'll just fall back and track us," Hella said.

"What if we go to hyperdrive?"

Engineer Jul snapped, "Are you crazy? With all this turbulence in the gravity field, surrounded by a wall of reflective Ghost hide, you may as well just detonate the engines."

Hella said, "It's that or be destroyed anyhow."

Borno said, "At least we will take down a lot of them with us. Millions, maybe."

They fell silent for a heartbeat. Then Hella called, "Pilot? It's your decision."

Hex knew this war was of economics. A great deal had been invested in her crew's raising and training, and in the ship itself. But that investment had been made to be spent. The four of them and the ship, in exchange for millions of these strange swarming new Ghosts: it was a fair price.

"It is our duty," she said. She brought up a bright, color-coded display and began to work through the self-destruct procedure.

She heard Hella sigh.

Borno said grimly, "It's been good to serve with you all."

Jul said, "Not for long enough."

Hex heard the tension in their voices. She had been trained for this, as for every other conceivable battlefield scenario. She knew that none of them really believed this was the end, not deep in their guts. If suicide was the only option, you did it quickly, before you had time to understand what you were doing. "I'll set it to five seconds. Good luck, everybody." She reached out her gloved hand to finalize the sequence.

"Wait." It was a new voice, smooth, toneless, coming from her command net.

In a visual before her was a Silver Ghost. It was one of the classic sort, a perfect sphere. The image was about the size of her head, a ball of silver turning slowly in the middle of her blister.

"You hacked into our command net," Hex said.

"It wasn't difficult," the Ghost said. Its voice, translated by the *Spear's* systems from some downloaded feed, was bland, without inflection. But did she detect a trace of sarcasm?

Jul spoke, her voice tremulous with fear. "Hex? What's going on? Just get it over—"

"Wait," Hex snapped.

The Ghost said, "I will let you live, in return for a service."

Hex could hardly believe she was hearing this. She heard the voice of her training officers in her head; in a situation like this, faced with a new stratagem by the Ghosts, it was her job to extract as much intelligence as possible. "Why us?"

"Because Aleph Force are the supreme killers in a species of killers, and you are the best of Aleph Force. Quite an accolade."

"And what's this 'service'? You want us to kill somebody, is that it?" A military leader, Hex speculated, a senior Commissary, maybe a minister of the Coalition's grand councils back on Earth—Ghosts had never resorted to assassination that she knew of, but then this was a day when nothing about the Ghosts seemed predictable. "Who, Ghost?"

Even on this day of shocks, the answer was stunning. "We want you to assassinate the Black Ghost."

II

Scarcely believing what she was doing, Hex set up a conference call involving herself, her crew, her commander at the base of Aleph Force back on the Orion Line—and a Silver Ghost.

Commodore Teel, a disembodied Virtual head floating in Hex's blister, glared at her. In his forties, Teel's face was hard, his eyes flat, and his scalp a mass of scar tissue. "None of you should even be alive. Pilot Officer Hex, charges aren't out of the question."

Hex swallowed back her shame. "I know that, sir. It was a judgment call to abort the self-destruct."

"Show me where you are."

Navigator Hella hastily downloaded positional data to the Commodore. The *Spear of Orion* had been smuggled through some kind of hyperspace jump out of its cage of Ghosts and brought to a position at the rim of the system, where only icy comets swam in the dark. They were far from the fighting that still raged in the inner system.

Teel stared at the Ghost's Virtual, which spun silently, complacently. "How did this creature bring you out here?"

Jul answered, "We're not sure, sir. We didn't monitor any communication between it and any other Ghost. The Ghost, umm, *broke* us out."

"I think we're dealing with factions among the Ghosts, sir," Hex said.

"Maybe there's an opportunity here. That's why I thought it best to pass it up the chain of command."

"And this Ghost wants you to kill one of its own."

"This Ghost has a name," the Ghost said. "Or at least a title."

"I've heard of this," Borno sneered. "Ghosts like titles. They are all ambassadors."

"I am no ambassador," the Ghost said. "This is not an age for ambassadors. I am an Integumentary." The *Spear's* systems displayed various alternative translations for "Integumentary": prophylaxis, quarantine. "I am part of an agency that insulates humans from Ghosts, like the hide that shields my essence from the vacuum of space."

"Charming," Teel said. "But, fancy title or not, you are my mortal enemy. If you want us to do something for you, then you must give us something in return."

The Ghost spun, its flawless hide barely showing its rotation. "I expected nothing less. The one thing you wasteful bipeds relish even more than killing is trade. Bargaining, mutual deception—"

Teel snapped, "If you expected it, you have something to offer."

"Very well," said the Ghost. "If you succeed we will decommission the new weapon system."

"What new weapon?"

"Directional gravity waves on a large scale."

The weapon that had churned up a planet. Hex held her breath.

"Download some data," Teel said. "Prove you can do this. Then we'll talk."

Hex watched, astonished, as the *Spear's* systems began to accept data from the Ghost.

Every human knew the story of the Silver Ghosts, and their war with humanity.

For fifteen hundred years the Third Expansion of mankind had been spreading across the face of the Galaxy. First contact between humans and the alien kind they labeled "Silver Ghosts" had come only a few centuries after the start of the Expansion. The Ghosts were silvered spheres, up to two meters across. Their hide was perfectly reflective—hence the human label "Silver Ghosts"; in starlight they were all but invisible.

The key to the Ghosts was their past. The world of the Silver Ghosts was once Earthlike: blue skies, a yellow sun. But as the Ghosts climbed to awareness their sun evaporated, its substance torched away by a companion star. As their world froze, the Ghosts rebuilt themselves. They became symbiotic creatures, each one a huddled cooperative collective. That spherical shape and silvered hide minimized heat loss.

The death of the Ghosts' sun was a betrayal by the universe itself, as they saw it. But that betrayal shaped them forever. Their science was devoted to fixing the universe's design flaws: they learned to tinker with the very laws of physics.

When humans found the Ghosts, at first two powerful interstellar cultures cautiously engaged. But the Ghosts' home range lay between mankind and the rich star fields of the Galaxy's core. The Ghosts were in humanity's way. War was inevitable.

After early quick victories, for centuries the Ghosts stalled the human advance at the Orion Line, an immense static front along the outer edge of Sagittarius Arm. The Ghosts, capable of changing the laws of physics in pursuit of weapons technology, were a formidable foe; but humans were the more warlike. After the final collapse of the Orion Line, humanity spilled into Ghost space, slaughtering and colonizing.

But now the Ghosts had suddenly hardened once more, with new weapons, new tactics—even a new breed of Ghost, it seemed.

A weapon that could use g-waves to devastate worlds was a characteristic Ghost weapon, exotic and powerful. And it worked, the Integumentary said, by tapping into the large-scale properties of the universe itself.

"Perhaps you understand that the universe has more dimensions than the macroscopic, the three spatial and one of time. Most of the extra dimensions are extremely small." A technical sidebar translated this for Hex as "Planck scale." "But one extra dimension is rather larger, perhaps as much as a millimeter. You must think of the universe, then, as a blanket of spacetime, stretching thirteen billion years deep into the past and some twelve billion light years across—"

"And a millimeter thick," said Hella.

"There are believed to be many such universes, stacked up—" the translator boxes hesitated, searching for a simile—"like leaves in a book. Also our own universe may be folded back on itself, creased in the thin dimension."

Engineer Jul said, "So what? We know about the extra dimensions. We use them when we hyperdrive."

"But," said the Ghost, "your applications are not currently on the scale of ours."

"Tell us about g-waves," Teel commanded.

The Ghost said that all forms of energy were contained within the "blanket" of the universe—all save one. Gravity waves could propagate in the extra dimensions, reaching out to the other universes believed to be stacked out there. The Ghosts had learned to focus the gravitational energy raining into their own universe from another.

"The energy source in the other universe is necessarily large," the Integumentary said. "Alternatively it may be a remote part of our own universe, an energy-rich slice of spacetime—the instants after the initial singularity for instance, folded back. We aren't sure. You understand that this weapon offers us a virtually unlimited source of power. It's just a question of tapping it. Beyond weaponry, many large-scale projects become feasible."

Hella said, "I wonder what 'large-scale' might mean for a species of universe-botherers like the Silver Ghosts."

Teel said, "Even when we were friendly with them, the Ghosts scared us, I think."

Hex had had enough of awe. "Let's talk about the target. This weapon system is in the control of the Black Ghost. . . ."

Recently the Ghosts had suddenly been scoring victories against the human forces. Their tactics had undergone a revolution that must reflect a change in their command structure, perhaps their very society.

"Humans work in hierarchies," Teel said. "Chains of command. All large-

scale military organizations in the past have done so. We tend to think it's the only way to operate, but in fact it's a very human way to work."

"An evolutionary legacy of your past," the Integumentary said. "When you were squabbling apes in some dismal forest, in thrall to the strongest male—"

"Shut up," Teel said without emotion. "Ghosts, however, have always worked differently. Their organization is more fluid, bottom-up, with distributed decision-making. The whole of their society is self-organizing."

"Like a Coalescence," Borno said with disgust.

"Like a hive, yes."

"The Ghosts are this way," said the Integumentary, "because of *our* evolutionary past. As you would understand if you knew anything about the species you are endeavoring to wipe out."

"Maybe," Teel said, "but you stayed that way because it's efficient. Even in some military applications: if you're waging a guerrilla war on an occupied world, for instance, a network of cells can be very effective. But in large-scale set-piece battles, which we always try to draw the Ghosts into, you need a command structure."

"And now they have one," Hex said.

"Which makes them harder to beat. But it also makes them more vulnerable, because suddenly assassination is an effective weapon."

Hex, intrigued, asked, "Why would any Ghost commit this treason? If the Black Ghost exists—if it lies behind these new effective tactics—"

The Integumentary said, "The Black Ghost's is the greater treason, because of where its project will inevitably lead."

Teel prompted, "Which is?"

"To an arms race. Humans will steal or reinvent the gravity wave technology for themselves. Then we will conspire together, humans and Ghosts, to wreck the Galaxy between us. Or, worse—"

"Ah," said Teel. "The Black Ghost will unleash such power that there won't be anything left for the victors to take."

"It's possible," Borno said. "Ghosts are single-minded. They choose a plan and stick to it, whatever the cost."

In the training academies there was a joke about Ghosts that had the right of way to cross a road. But the transport drivers ignored the stop signs. So the first Ghost crossed, exerting its rights, and was creamed in the process. So did the second, the third, the fourth, each sticking to what it believed was right regardless of the cost. Then the fifth invented a teleport, changing physical law to make the road obsolete altogether. . . .

Teel said, "So you want the Black Ghost eliminated before it destroys everything. Even though this may be your best chance of winning the war and of avoiding the subjugation or even extinction that would follow."

"Sooner extinction than universal destruction," the Integumentary said.

"How noble."

Hex said, "And you, Integumentary, are prepared to make the most profound moral judgments on behalf of your whole species—and their entire future?"

Borno said, "Who cares about Ghost ethics? They won't need ethics when they're all dead."

"You're deranged, gunner, but you're right," said Teel. "We don't need to consider Ghost consciences. Our job is to consider what use to make of this strange opportunity. Certainly we need to find out more about these new Ghost variants you've come up against. I'll pass this up the line to—"

"You decide now," the Ghost snapped.

Borno said, "If you think a commodore is going to take orders from a ball of fat like you—"

"Can it, gunner," Hex snapped.

"You decide now," the Ghost said again. "You allow this crew, in this ship, to follow my instructions, or I disconnect the link."

Hella said, "I guess the Integumentary has its own pressures. Imagine trying to run a covert operation like this from our side."

"We'll follow your orders, whatever you say, Commodore," Hex said.

"I know you will," Teel said dismissively. "But I've no way of assessing your chances of success—let alone survival."

"Our survival is irrelevant, sir," Jul said.

"I know that's what you're taught, Engineer. Perhaps there are a few desk-bound Commissaries back on Earth who actually believe that. But out here we who do the fighting are still human. The mission has a greater chance of success if you're willing to take it on."

"I'm willing," Borno said immediately.

"I've seen your file, gunner. What about those of you who *aren't* psychopathically hostile to the Ghosts and all their works?"

Hella was uncertain. "We're flight crew. We aren't infantry, or covert operatives. We may not be right for the job."

"We're Aleph Force," Hex said firmly. "In Aleph Force you do whatever it takes."

"Anyhow I don't think there's a choice," Jul said. "Us or nobody."

Hella asked, "So what do you think, Pilot?"

Hex looked into her soul. A journey into the very heart of Ghost territory—a mission that might turn the course of the war—how could she refuse? "I'm in."

Jul, Hella, and Borno quickly concurred.

"I'm proud of you," the Commodore said.

The Ghost spun. "Humans!"

Hex snapped, "All right, Ghost, let's get on with it. Where are we going?"

More data chattered into the *Spear's* banks.

III

The *Spear of Orion* swept through space. The needleship moved from point to point through hyperdrive jumps, each too brief for a human eye to follow, so that the stars seemed to slide through the sky like lamp posts beside a road. For the crew, the journey was a routine marvel.

But Hex and her crew had come far from the outermost boundary of human space, farther than any human had traveled from Earth save for a handful of explorers. And every star they could see must host a Ghost em-

placement: if humanity was turning the Galaxy green, then this rich chunk of it still gleamed Ghost-silver. But the *Spear* remained undisturbed.

"It's eerie," Engineer Jul said. "Ghosts should be swarming all over us."

Hex said, "The Integumentary promised to make us invisible to the Ghosts' sensors, and it's keeping its word."

Jul, a practical engineer, snorted. "I'd feel a lot more reassured if I knew *how*."

Borno said, "What do you expect? Ghosts don't give you anything." His pent-up rage, here in Ghost territory, was tangible.

They sailed on in tense silence.

Borno had been born between the stars. His ancestors, who called themselves "Engineers," had fled Earth at the time of an alien occupation. With no place to land, the refugees had ganged together their spacecraft and found ways to live between the stars, through trading, piloting, even a little mercenary soldiering.

When the Third Expansion came, Borno's Engineers had been one of a number of peripheral cultures recontacted by the Coalition, the new authority on Earth. But the Engineers had also forged tentative contacts with the Silver Ghosts, who were undergoing their own expansion out of the heart of the Galaxy. For a time the Engineers had profited from trade between two interstellar empires. They even welcomed small Ghost colonies on their amorphous islands of relic spacecraft and harnessed asteroids.

But then Navy ships came spinning down to impose Coalition authority on the Engineers' raft culture. There had been a strange period when autonomous Ghost enclaves had been granted room to live under the new regime: Silver Ghosts, living under Coalition authority. But the Ghosts had been taxed, marginalized, and discriminated against until their position was untenable. Their maltreatment had led to a rescue mission from Ghost worlds—and that had led to one of the first military engagements of the long Ghost Wars, fought out over the Engineers' fragile raft-colony. Among the Engineers, many had died, and the rest had been dispersed to colonies deeper within Coalition space.

All this was centuries ago. But Borno's people had never forgotten who they were and where they had come from; they still called themselves "Engineers." And in their minds it had been Ghost aggression that had resulted in the deaths of so many and the loss of an ancient homeland.

Hex reflected that it would do no good to try to explain to Borno that it had been Coalition policy that had precipitated that defining crisis in the first place. And besides, Borno's wrath was useful for the Coalition's purposes. In a war that spanned the stars, he was not unique.

"Heads up," Hella said. "I have a visual. Theta eighty-six, phi five."

Their destination was dead ahead.

Hex saw a double star: a misty sphere that glowed a dull coal red while a pinpoint of electric blue trawled across its face.

The *Spear's* crew had had to find their way here by dead reckoning. This system didn't show up in the Navy's data banks. After fifteen centuries of the Third Expansion, the Commission for Historical Truth believed it had mapped every single one of the Galaxy's hundreds of billions of stars, human-controlled or not—but it hadn't mapped this one.

Anomaly or not, somewhere in this unmapped system, the Integumentary had promised, the crew of the *Spear* would find the Black Ghost.

Gunner Borno said hastily, "We're crawling with Ghosts."

Hex checked her displays. All around her were Ghosts: their ships, their emplacements, their sensor stations and weapons platforms. The whole system was like a vast fortress, defended to a depth of half a light year from that central double sun, with more monitoring stations and fast-response units even further out.

"None of them are reacting," Jul said, sounding disbelieving. "Not one unit."

Hex said, "Then forget them. What are we looking at?"

Jul said, "I've seen systems like this before. That blue thing is a neutron star, right?"

"Yes," Hella said. "Actually a pulsar . . ."

Once this had been a partnership of two immense stars—until the larger, too massive, had detonated in a supernova explosion, for a few days outshining the whole Galaxy. Its ruin had collapsed down to form a neutron star, a sun-sized mass compressed down to the size of a city block. As it spun on its axis, a ferocious magnetic field threw out beams of charged particles to flash in the eyes of radio telescopes: it was a pulsar.

As for the supernova's companion, the tremendous detonation stripped away most of its outer layers. Its fusing core, exposed, had not been massive enough to maintain the central fire. The remnant star had subsided to misty dimness.

Hella said, "But the system is actually still evolving. That pulsar is dragging material out of the parent." She showed a false-color image that displayed a broad disc, material the pulsar's gravity had dug out of the larger star's flesh and thrown into orbit.

"So that star blew its companion up," Borno said, "and now it's taking it apart bit by bit. What a dismal place this is."

"And yet," Hella said, "this system has planets. Two, three, four—more off in the dark, they surely don't matter. It's the innermost that has the most Earthlike signature: air, liquid water, oxygen, carbon compounds. Smaller than Earth, though."

Across human space, people always spoke of Earthlike worlds, though few of them had ever seen Earth; the mother planet remained the reference for all her scattered children.

The original binary could have hosted Earths, if they were far enough from the brilliance of the central stars. No biosphere could have survived the supernova detonation, but once the system became stable again, any surviving worlds could have been reborn. Comets or outgassing could create a new atmosphere, a new ocean. And life could begin again, perhaps crawling out of the deepest rocks, or brought here by the comets—or even delivered by conscious intent; this was a Galaxy crowded with life. How strange, Hex thought, a planet that might have hosted not one but two iterations of life. She wondered if its new inhabitants had any idea of what went before—if those doomed by the supernova had managed to leave a trace of their passing, before being put to the fire.

"But that pulsar is still chipping away at the red star," Jul said. "The sun is failing."

"And if there are Ghosts here, they are suffering." Borno snarled. "Good."

Hella called, "There isn't much off-world, but I can see one large habitat orbiting the innermost planet."

"Then that's our destination." Hex set up an approach trajectory. She felt the needleship's intrasystem engines thrumming around her, powerful and secure, and the dim red sun swept towards them.

Borno said, "Pilot, your trajectory will take us right through the thick of the Ghosts."

"Gunner, they either see us or they don't. We may as well walk in the front door."

Borno said tensely, "Trusting a Ghost with our lives?"

"That's always been the deal."

"You mean," Jul said tensely, "the whole mission's always been half-assed."

"Stay focused," Hex murmured.

"Closest approach," Hella called now.

The star ballooned out of the dark. Its dim photosphere bellied beneath Hex's blister, churning dully, disfigured by huge spots. A pinpoint of electric blue rose over the crimson horizon of the parent, casting long shadows through the columns of glowing starstuff that its gravity hauled up from the body of the parent star.

"Sunrise on a star," Borno said. "Now there's something you don't see every day."

"But we've got more anomalies," Jul reported. "The parent's composition is all wrong. Too much hydrogen, not enough metals. Younger stars incorporate the debris of earlier generations, fusion products, heavy elements like metal, carbon. It's as if this star is *too old*—only by a million years or so, but still—"

"I'll tell you something stranger," Hella said. "This star system may not be in the Coalition catalogues, but it's a near-identical twin of a system that is." She brought up an image of another system, another red star with a bright blue companion pulsar; Hex saw from the accompanying data that the system's orbital dynamics were virtually identical. Hella said, "This other star is in Ghost space too. Only a few tens of light years away."

Hex let all this wash through her. You weren't wise to block information flows, especially when you were flying into the unknown like this. But she couldn't see an immediate relevance in these stellar mysteries.

She was relieved when the twin stars fell away, the needleship climbed back out of the parent star's gravity well, and the target planet came looming out of the dark.

Unlike the rest of her crew, Hex had been brought up on a planet, only a few light years from Earth itself. But even to her eyes this little world looked strange. Huddled close for warmth, it kept one face to the parent star. The subsolar point on the daylight hemisphere, where the sun would be perpetually overhead, must be the warmest place on the planet. Hex made out climatic bands of increasing dimness sprawling around that central point, so that the face of the planet was like a target, bathed crimson red. And on the dark side, illuminated only by starlight, she glimpsed the blue tint of ice.

As the needleship swung closer, she made out more detail on the sunward side: dark patches that might have been seas, broad crimson plains, and here and there a bubbling grey that was the characteristic of habitation, cities. But sparks crawled over the terminator, the boundary between day and night, and where they landed fire splashed.

Jul murmured, "What are we getting into here? It looks like a war between the day and night sides."

Hella said, "That big orbital habitat is by far the highest technology on or around the planet. The materials, the trace radiation—it looks like it's the only example of modern Ghost technology here."

"If the Black Ghost is anywhere," Hex said, "that's where it will be. Fix the course, navigator—"

The *Spear* shuddered and spun crazily, that faint sun and its huddled world whirling like specters. Hex's blister lit up with alarm flags, flaring bright red.

She barked out commands and wrestled with her joystick. "Report!"

"It was g-waves," Jul called back. "Just like the beams they used back on 147B."

"Were we targeted? They aren't supposed to be able to see us."

Hella said, "The whole system is crisscrossed by the beams. We just ran into one."

"A defensive measure?"

"I don't know. Maybe. Or something to do with the stellar system itself—"

Borno said, "We have company. Theta thirty, phi one hundred. They are coming out of that habitat."

A swarm of palette-ships came swooping down on the *Spear*. Maybe it had been too much to expect the Integumentary's shielding to survive the g-wave buffeting.

Grimly Hex fought with the still-spinning ship. "Open up the weapons ports."

"Half of them are off-line," Jul called back. "And our sensors are blitzed too. Right now we're de-fanged, pilot. Give me two minutes and—"

The first shot sizzled through space only a couple of kilometers from the *Spear*'s nose.

"We don't have two minutes," Hex snapped. "Options. Come on, guys!"

"Fight!" Borno called.

"Run," said Jul.

"Abort to the planet's surface," advised Hella.

At last Hex got the spin under control. But the face of the planet was a mottled crimson shield before her. More alarms lit up as the needleship sensed the first touch of this world's thin atmosphere. "Looks like we don't have much choice." She hauled on her controls, turned the needleship so its nose pointed down into the atmosphere—and she lit up the intrasystem drive to hurl the ship into the cover of air. A ball of light engulfed the *Spear*, atmospheric gases ionized and driven to white heat. In the blisters the inertial control held, more or less; Hex and her crew felt only the mildest of judders as they fell into the air of an unknown world.

All this in utter silence.

"We're kind of lighting up the sky here, pilot," Borno called.

Hex said, "It will get us down quicker. The ground proximity sensors will pull us out before—"

"Sensors are off-line," Jul reminded her hastily.

"Oops," said Hex. She hauled on her joystick.

"Land below us," Hella called. "Now over ocean—"

Hex's blister filled up with crash foam, embedding her like a wrapped-up doll, so tight she couldn't move a finger. She felt nothing as the *Spear of Orion* cut a tunnel through an ocean a half-kilometer deep, and then, before the waters had even closed, gouged a crater fifty kilometers across in the soft rocks of the ocean floor.

Her crash foam shattered, broke up and fell away.

She was floating. She was surrounded by misty grey-green air, illuminated by dim slanting light—no, not air, she realized as she tried to move her limbs. This medium was water. Thankfully her skinsuit was holding.

She looked around. Flecks of her crash foam fell away. Of the needle-ship, her crew, there was no sign in this murky soup. The *Spear of Orion* had been her first command, and now it was gone in seconds.

And here she was, immersed in an unknown sea. Hex's world was largely untamed. Her people, like humans everywhere, were drawn to the sea, but you never went swimming, for the ocean was full of monsters. She didn't even know how deep she was—or which way was up. For a moment panic bubbled, and she thrashed, wasting energy, until she forced herself to be still.

She ordered her skinsuit to use the planet's gravity field to find the local vertical. Then, when it was oriented, she made the suit climb. She glimpsed the ocean's scummy meniscus an instant before she broke through into the air, to her huge relief.

She rose into a crimson sky, where a misshapen sun hung low. Beneath her the ocean looked black, oily, and huge, languid low-g-waves crossed its surface. But she could see, deep down beneath the waters, a pale pink glow that must be the crater they had made.

Another skinsuit broke the surface, popping up like a balloon. Then a third, and a fourth. Hex made them sound off and report on their status. Everybody was unscathed, physically anyhow. They bobbed over the surface of the ocean, four drifting people in bright green suits.

"The *Spear* has had it," Jul said. She downloaded to Hex a last data squirt from the dying ship.

"We're stranded," Hella said gloomily.

"We still have weapons in our suits," Borno said.

Hex said, "If we can find anybody to shoot at—"

Jul pointed down at the ocean. "Pilot—what's that?"

Something moved, just under the surface. Larger than a human, amorphous, dimly glimpsed, it seemed to be moving purposefully.

Hex could hear her mother's voice: *There are monsters in the sea.* "My turn to be phobic," she murmured.

Hella said, "What? . . . Look. It's breaking the surface."

Hex glimpsed sleek flesh humping above the water. Then something

like a limb protruded. Hex flinched; it was as if the limb had reached for her.

"I can't make out its shape," Borno said.

"Maybe it has no fixed shape," Hella said. "I've read some creatures of the seas are like that."

"But it's a toolmaker," Jul said calmly. She pointed. "It's wearing a kind of belt."

All this seemed utterly horrific to Hex. That limb, muscular, equipped with suckers and fine manipulators, continued to writhe in the air.

"You know," Hella said, "I think it's *beckoning*."

"To us?"

"Of course to us. I think it wants us to follow it—to the land, probably."

"What land?" Jul asked.

Hella sighed. "Some navigator you would make. Over there."

There was a dark shading on the horizon.

Hex's sharp pilot's eyes picked out sparks descending from the sky. "We're out of time."

"They're tracking the wreckage of the ship," Jul said.

"We stand and fight," Borno snarled.

"Not here," Hex snapped. "Not now. Borno, we can't win."

"We should follow the swimming thing," Hella said. "It might help us."

"You think so?" Jul asked.

"It's clearly smart. And it's trying to help us right now. Why not?"

Hex looked down with huge reluctance at the blank surface of the water, the uncharted depths beneath. "We don't have a choice," she told her crew, and herself.

She flipped in the air and plunged headfirst back into the water. Her suit's systems whirled as it sought neutral buoyancy, and made her legs kick. Her tell-tales showed her that her crew followed her in: one, two, three.

They all struggled through the water in pursuit of the "swimming thing."

IV

Hex woke. She was reasonably comfortable, even warm. But when she looked up, she peered out through a translucent bubble-wall at the roof of a cave.

She stretched, sat up.

By the light of a suit lamp, the others were already eating. They sat around suit backpacks that glowed green, giving off light and warmth. Breakfast was a slab of sticky green, manufactured by a backpack from the organic produce of this world's ocean, washed down by a visor-full of water.

On staggering into this seashore cave, Hex had inflated her own suit to form this bubble-tent. If you looked carefully you could see the suit's seams, even one stretched-out glove. Inside, the crew had stripped off their suits, pooled their backpacks, and slept, lying on one stretched-out suit while blanketed by another. They had needed time for some essential maintenance, of themselves as much as their suits.

In the mouth of the cave, beyond their shelter, a fire burned fitfully, hampered by poor convection in the low gravity. Oddly the flickering glow of the fire seemed more human than the pale green of the suit lights, but it had been built by an utterly alien being.

It was odd for Hex to have her crew together like this. She had spent most of the last year with them, but for most of their time together they were sealed up in their blisters. Now here they were, stripped down to their heated undergarments, all crammed in. Borno, the only man, was bulky, big-boned, hard-muscled. She imagined him spending hours honing his body so he could take down Ghosts hand-to-hand if he had to. Hella was smaller, thin, morose and anxious, but possibly the smartest of the three. Jul looked a little overweight; maybe she had been skimping physical exercise. Of course the fact that the lower half of her body was a clunky prosthetic didn't help.

And then there was Hex—the youngest, she uncomfortably reminded herself.

Borno groused, "We're interstellar warriors and we're reduced to this. Stuck in a cave like animals. You can't even tell if it's morning or night."

"It's always day here, dummy," Hella said. She sounded tired, drained; she chewed on her food tablets without enthusiasm.

"Lethe, you know what I mean. It's morning *somewhere* . . ."

Restless, Hex made her way to the wall of her suit-tent. They were in the northern hemisphere, but the cave was oriented south, so she could see the twin sun, a glum red blur with that spark of bright blue crawling over its face. It was strange to think that the double star never moved from its station in the sky, as if nailed there. The ground was worn, a thin soil lying over the melted bedrock that was all that had survived a supernova torching. The air was less than a fifth Earth's pressure: too thin for them to breathe, but enough to transport sufficient heat around the planet to keep all the water, and indeed the air itself, from freezing out on the dark side.

And on this small world, in this thin air, there was life.

Hex made out gaunt silhouettes standing on a low ridge. They looked like antennas, with dishes turned up to the sun. They were plants, something like trees—but they were colony organisms, with the leaves independent creatures, roosting on the branches like birds. The pool of shadow behind that ridge hadn't been touched by sunlight for a million years.

"We've got company," Hella murmured.

A puddle of slime, glistening in the low sunlight, flowed in over the cave floor. It gathered itself up into a rough pillar and let fall a belt stocked with tools of stone and metal. Unstable and oozing, it seemed to warm itself by the fire, and pseudopods extended to hurl a little more fuel onto the flames. Then it collapsed again and came slithering over the floor of the cave towards the humans' shelter. It dumped organic produce by the translucent wall: what looked like seaweed, and even a fish, a triumph of convergent evolution.

This was the crew's only ally on this strange world.

His name for himself had translated as *Swimmer-with-Somethings*, the "somethings" being an aquatic creature they hadn't been able to identify. Close to, he looked disturbingly like a flayed human, immersed in a kind

of gummy soup within which smaller creatures swam. The "he," of course, was for the crew's convenience, though there might have been genders among the myriad creatures that made up this composite animal.

The motile puddle pushed a membrane above its oily meniscus, and Hex heard soft gurgling sounds.

Hella studied her suit's translator box. "He says—"

"Let me guess," said Hex. "More food.' Tell him thanks." She meant it. The humans couldn't eat the native life, but the biochemistry was carbon-based, and their suits' backpacks were able to use this raw material to manufacture edible food and to extract water.

Hella murmured into her unit, and the membrane pulsed in response. They had been surprised how easy it had been to find a translation. Swimmer's speech pattern was similar to some variants of the Ghost languages that humans had been studying for centuries, an odd fact that Hex had filed away as one of the many puzzles to be resolved about this place.

Engineer Jul was fascinated by the creature's biological organization. "Look at that thing. He's obviously a colonial organism. Every so often all the components go swimming." She pointed. "Those little blobs look like algal cooperatives. Powered by capillary action, probably. But these 'algae' are jet black—probably something to do with the photosynthetic chemicals used in the local ecology. I'm not sure what those little swimming shrimp-like creatures are for. . . ."

Swimmer had a skeleton of something like cartilage, and "muscles," pink and sinewy, adhered to it. But the cartilage itself was independently mobile. And now a "muscle" detached itself from its anchor, swam to the surface of the slimy pool into which Swimmer had deliquesced, and opened a mouth to breathe the air.

Borno's face contorted. "How gross."

"More gross than a Ghost?" Hex asked.

He turned to her, his eyes stony. "Well, now, that's the question, isn't it? We know the Ghosts are some kind of colony creature too. And we know that this wriggling, dissolving thing speaks a kind of basic Ghost language. I think it's time we asked him what is going on here—and what he has to do with the Ghosts."

"He may not know," Jul warned. "He is technological, but primitive. And we may turn him against us."

Borno snapped, "So what?"

"I think Borno's right," Hella said. "We're not getting anywhere sitting in here. We have to take a few risks."

"If he knows who's shooting at him from the night side," Borno said, "it would be a start."

Hex considered. She had been trained by the Commissaries in alien psychology—or at least, how to manipulate it. "We humans are very self-centered," she said. "Everything revolves around us. But for Swimmer, we're peripheral. He doesn't care what we want, even where we came from. He's helping us stay alive for his own reasons—and that's our angle. Hella, try asking him why he's helping us."

Hella murmured into her translator unit.

He was helping them, Swimmer replied, because they were the enemies of his enemies.

Swimmer didn't know that the ecology that had spawned him was the second to have arisen on this battered world.

His sun was dark and cold to human senses, but to the creatures that evolved in its ruddy light it was a warm steady hearth. "In fact," Hella said, smiling, "Swimmer doesn't believe that life on a planet like Earth is possible. A dazzling sun, a daily cycle of light and dark, seasons, ice ages—how could any ecology evolve in such a chaotic environment?"

Life, though, had taken a different route to Earth. The continued cooling of the sun had exerted a selective pressure to huddle, to share, to keep warm. Here, large animals were rare, cooperative organisms the norm.

Hex had never seen another of Swimmer's kind, but it seemed he joined with others in the depths of the sea. There the bits that made up the people danced in their own eager matings. And if you came out of the great merging with a slightly different set of subcomponents, so what? Hex suspected that "identity" meant something rather different to these people than to her own.

When intelligence evolved among Swimmer's predecessors, their biology shaped everything they did. Unlike humans, their politics were a matter of cooperation rather than competition, though there could be disagreements, even wars. They crawled out onto land—surely the low gravity helped them with that conquest—where there were raw materials to be shaped, power sources like fire impossible underwater. Their different origins shaped their technology. They discovered a genius for molding themselves and their coevals; these people were capable of advanced biochemistry, though their physical technology was no more than Iron Age.

They had even managed to achieve spaceflight. A handful of Swimmer's people cloaked themselves in a new kind of hide, a tough, silvered skin capable of retaining inner heat while resisting the harsh radiations of space. In time, ice moons and comet nuclei had become home to a new variant of Swimmer's kind, who rarely visited the home planet.

But all the while the pulsar continued its slow, lethal work of slicing away the substance of the sun.

As this story unfolded, the *Spear* crew exchanged glances of recognition.

It had become increasingly clear that a crisis was approaching. A decision emerged from the interconnected councils of the people. The interplanetary wayfarers were summoned home. The most technologically advanced of their kind, perhaps they could find a way to save the world.

The space-hardened wayfarers returned. By now the ice cap on the night-side, hard and cold, was not so different a habitat from the ice moons they had made their home. But they found they resented being begged for help by those they regarded as a primitive, weaker form. They saw ways to use this fat rocky world for their own purposes—and all the better if the murky atmosphere and muddy oceans were frozen or stripped off.

Bringing the spaceborne home was a catastrophic mistake. They had diverged too much from Swimmer's kind. There were two species now, too far apart, competing for the same space. Conflict was inevitable.

The nightsiders were outnumbered by the daysiders, but were far more technologically advanced. For centuries they had been launching missile after missile over the terminator, from the dark to the light. At first the daysiders had fought back; epic invasions of the night had been launched. But as its cities and farms were devastated, the thin material base of the dayside crumbled. By now only scattered survivors, like Swimmer, remained. They mounted guerrilla actions against nightside patrols. But they knew the war was lost, and their future with it.

And recently, as if they had not suffered enough, a new peril had arisen, when a new light crossed the sky.

"The habitat of the Black Ghost," Borno said grimly.

Suddenly the simple ships of the nightsiders had been equipped with faster drives and still deadlier weapons. Swimmer, with a resigned acceptance, had come to believe that his people's time was up—until, in the form of the humans, he had stumbled on his own miracle from the sky.

Hex was distracted by a shadow crossing the cave mouth.

Hella was growing excited. "Pilot, I think I've figured it out—"

"Shut up," Hex hissed. The shadow crossed again. Now she was sure: it was a palette-ship, and four, five, six Ghosts, angular rhomboids, rode it menacingly. Hastily she shut down their packs, and made her crew lie flat. Even Swimmer lay still in his puddle of slime.

The palette paused briefly at the cave mouth, but anything within was hidden by the fire. With a careless burst of an energy weapon, the Ghosts smashed Swimmer's hearth, scattering its fuel. Then the palette moved on.

The crew stood up cautiously.

Borno said, "So they're looking for us. We have to get out of here."

Hella grabbed his arm. "Not before you listen to me. I've worked it out. This world is—"

"The home world of the Ghosts," Borno said, dismissively. "And this is their origin, from a million years back or so, somehow brought forward in time. Isn't that obvious?"

Not to Hex. Her jaw dropped; she deliberately closed it.

Jul was figuring it out too. "Yes, yes. Swimmer speaks a variant of one of their languages. Ghosts are cooperative organisms, just like Swimmer. Even their hides were once independent creatures—"

"Every Ghost is a whole ecology in a sack," Borno murmured, repeating training-ground lore.

Hella said, still excited, "We even found a copy of this system thirty light years away! *That* must be the present-day copy—this one is dredged up from the past . . ."

Jul said, "The 'primitive' Ghosts must come from this world. The Black Ghost recruited them here."

"Maybe that's why this was done," Borno said darkly. "The Black Ghost has tapped its own deep past for raw material for the war with humans. When Ghosts told us about their origin they never mentioned this devastating civil war, did they? Funny, that."

Hella turned to Hex. "Pilot? You've been very quiet. What are you thinking?"

Hex looked at her, abstracted. "About time travel." Humans had

achieved time travel, of course. Every faster-than-light ship was a time machine, and it was said that in the old days the legendary hero Michael Poole once traveled through time in a wormhole. "We've sent a few people, a ship or two, through a few centuries. But the Ghosts have brought a star system, *a whole system*, up through a million years."

That sobered them.

Jul said, "The Integumentary did say that their new extra-dimension technology was opening up vast energy sources for them."

"Yes. But I never dreamed it would be capable of something like this."

"And," Borno said coldly, "it's in the hands of the Black Ghost."

"So we have to stop it," Hex said. The others nodded, determined.

"All right," Hella said. "But how? We're still stuck in this cave."

"We have to get off the planet," Hex said. "And as far as I know the only launch capabilities are the nightsiders." She considered Swimmer. She wondered if he knew he had been projected into the farthest future of his own kind. "Hella, do you think your new friend could help us get across the terminator?"

V

Under the guidance of Swimmer-with-Somethings, they journeyed north. They would cross into night somewhere near the planet's spin pole.

The journey took them days—Earth days. They traveled out of sight of the ur-Ghosts, as they took to calling them, these cousins of Swimmer hardened for space but not yet of the optimal spherical form they would reach later. They clambered through tunnels, along the shadowed floors of deep ravines, and swam under the sea, their suits' inertial control packs laboring to keep up with Swimmer's economical motions. When they stopped, while the humans tended their blisters, Swimmer huddled in a gelatinous mass in any sunlight he could find, or, if they were in the ocean, he discorporated with exuberant relief. It was a mystery to Hex how the little shrimps and algae and amphibians that made up his body knew when to come back, and how to reintegrate.

As they forged steadily north, the sun slid down the sky, and the shadows stretched long and deep. In the dimming sky, Hex glimpsed stars, and the single bright pinpoint, steadily tracking, that was the Black Ghost's habitat.

At last they came to a place where the sun sat on the horizon, glowing like hot coal. It looked as if it was about to set, but of course it never would. Life was sparse at this high latitude. An analog of grass spread across the ground, though its native photosynthetic chemicals made it black, not green. But nothing grew in the long shadows, on this world where every shade was permanent.

Swimmer left them here. Unable to tolerate freezing temperatures, he could go no further. "Fight well for me," he said to them through Hella's translator box. Then he squirmed away, like rainwater disappearing down a drain.

Hex looked north into the darkness. She saw motion: palette-ships, patrolling this boundary between day and night.

Borno pointed. "There are structures over that way."

"Let's get on with it," Hella said tautly.

Following Borno's lead, they walked into the night. Hex could sense Jul's fear, Hella's tension, and Borno's grim, bloody determination.

The sun disappeared altogether. They passed a few last trees, so tall that their leaves blazed in sunlight while frost gathered on their roots. "Interesting bit of biomechanics," Jul said nervously. "They must have evolved to exploit the temperature differences between their crowns and their roots. And I guess these last trees must be as tall as this stock can grow, otherwise—"

"Shut up," Borno hissed.

They came to a wall. It was just a heap of what looked like sandbags, glowing silvery in the dim light. They crouched behind this and cautiously peered at the structures that lay beyond.

Hex saw a kind of city, spun out of silver and ice resting on a black velvet landscape. Necklaces swooped between cool globes, frosted, icicles dangling. Sparks of light drifted between silvered domes: Ghosts, or ur-Ghosts. The place had an organic look, as if it had been grown here rather than planned. But there was nothing of Swimmer's vibrant, swarming physicality to be seen in this chill place.

This was a typical Ghost colony. Ghosts stayed away from the heat of stars, but they had remained planet-dwellers; they tapped a world's geothermal heat for their energy, just as they evidently had on this, their own freezing world. And their colonies always had this tangled, unplanned look.

There were anomalies, though. On a slim spire that towered over the reef-city, a light pulsed steadily, brilliant electric blue. And at the very center of the township a squat cylinder brooded. Hex's suit sensors told her this was merely the upper level of a complex dug deep into the ground, where thousands of Ghosts swarmed. This fortress, very unlike Ghost architecture, was the work of the Black Ghost, obvious even here, just inside the boundary of night.

Borno tapped Hex on the shoulder and pointed.

A handful of ur-Ghosts swarmed around a palette-ship on the ground. The Ghosts' forms were variants of parallelepipeds, like slanted boxes. They were really quite beautiful, Hex thought, their facets flashing like mirrors in the starlight as they worked.

Borno whispered, "Four of them, four of us. We can take them out. And then we can grab that palette-ship and get to orbit."

Jul hissed, "We only just crossed the terminator. Maybe we should go further before—"

"What's the point? We came here to find a way off the planet. There's our opportunity." He raised his hand, holding a knife.

Hex said, "Borno is right. The longer we hang around the more chance we have of getting caught. Let's do this. There's a blind side over there, to their right. Borno, if you take Jul and head that way, Hella and I can—"

Hella cried, "Look out!"

The wall behind Hex's back suddenly gave way, and she was tipped

onto the cold ground. When she looked up she saw that the "sandbags" were suspended in the thin air, heavy, rippling sacks swarming over her head. There must have been fifty of them, more.

This "wall" had a been a reef of ur-Ghosts, huddled together. She should have known, she thought; she had seen their space-filling antics in combat. What a stupid mistake.

The ur-Ghosts descended.

Borno screamed, "Weapons!" Snarling, his blade in his hand, he was trying to get to his feet.

Hex raised her arms. Her suit weapons powered up.

"Don't fire."

The ur-Ghosts went limp, quivered, and fell. It was like having sacks of water dropped on you from a height. Hex's suit turned rigid to protect her. Then the crew of the *Spear* fought their way out from the heap, shoving the floppy sacks away with a whirl of exoskeletal multipliers.

Beyond this chaotic scene a Ghost hovered, bobbing gently with a delicacy that belied its mass. It was one of the modern kind, a smooth, seamless sphere. Borno raised his blade, but Hex grabbed his arm.

"You are the Ghost we met. The Integumentary. You've dogged us all the way."

"Yes. From one blunder to another. I am here to ensure the success of the mission. I hoped I wouldn't have to reveal myself; I hoped in vain. I never believed you would be so stupid as to hide behind a stack of ur-Ghosts."

Jul looked around at the limp ur-Ghosts that were scattered like immense raindrops on the ground. "Why do they cluster like this? *You* don't."

"Perhaps it's a relic of their past," Hella said. "Swimmer congregated with his kind. These strange forms long to do the same."

"Now they know you are here," the Ghost said. "The Black Ghost and his hierarchy. They know *I* am here. You have little time. I suggest you hurry to the transporter you chose."

They clambered past the heaps of fallen Ghosts and ran.

The four ur-Ghosts who had been tending the palette-ship had fallen like the others. When Borno reached the first of the ur-Ghosts he raised his knife, preparing to cut into its hide.

"It is dead," the Integumentary said quickly. "I had to kill it. I had to kill them all." It hovered over the fallen ur-Ghosts, its movements agitated.

Borno, his knife still raised, laughed. "You killed your own kind, dozens of them, to aid an enemy that is determined to eradicate your species. You really are screwed up, Ghost."

"I serve a cause beyond your comprehension."

"Oh, really? Comprehend this." Borno plunged his knife into Ghost hide. A watery fluid, laced with red blood, spilled out onto the cold ground.

"I told you it is dead," said the Integumentary.

"I know," Borno said. With an effort he ripped back the ur-Ghost's skin, exposing glistening muscles, organs. "Pilot, we can ride this ship up to orbit, but do you think the Black Ghost will let us just sail in? We'll wrap ourselves up in this stuff. Camouflage. Come on, help me."

Jul said, "That's repulsive."

Borno shrugged and carried on cutting.

Such an unsophisticated ploy would never work, Hex thought. But maybe they could use a little psychology, let the Black Ghost think it had won a victory. She stepped forward, chose an ur-Ghost of her own, and took her own knife from its sleeve on her leg. "Let's get it over."

The Integumentary spun, agitated. "You humans are beyond understanding."

"Which is why you hired us to do your dirty work," Borno snapped, contemptuous.

As she worked Hella said, "Integumentary—what is *that*?" She pointed at the tower that rose from the Ghost city, with its electric-blue light pulsing at its tip.

The Ghost said, "You understand where you are, what world this is. In these times, my ancestors understood full well that it was the pulsar that was destroying their sun. So they venerated it. They made it a god. They called it—"

Hex's translator unit stumbled, and offered her a range of options. Hex selected *Destroyer*.

Hella said, "Fascinating. Humans have always worshipped gods who they believed created the world. You worship the one that destroyed it."

"It is a higher power, if a destructive one. It is rational to try to placate it. All intelligent creatures are shaped by the circumstances of our origins."

Borno sneered. "It's terrible for you to be brought here, isn't it, Ghost? To confront the darkest time of your species. You'd prefer to believe it never happened. And now humans are learning all about it."

The Ghost spun and receded. "You haven't much time."

Borno had already got the skin off his ur-Ghost. An independent entity in its own right, it was flapping feebly on the cold ground, and the ur-Ghost's innards were creatures that flopped and crawled. Borno kicked apart the mess with a booted foot.

VI

The cup-shaped indentations in the surface of the palette-ship were just shallow pits. Hex had to sit cross-legged.

Borno set up an ur-Ghost hide over her, like a crude silvered tent. Hex was sealed in the dark. The hide, freshly killed, was *still warm*, and she felt blood drip on her back. But she shut her suit lamp down, set her visor to show her the exterior of the ship, and tried to forget where she was.

The palette-ship turned out to be simple to operate. After all, analysts in military labs had been taking apart Ghost technology for generations. All Hex had to do was slap her gloved palms flat against the palette's hull, and her suit found a way to hack into its systems. Experimentally she raised her arm. The palette lifted, tipped, and wobbled, a flying carpet on which they were all precariously sitting. But then the inertial control cut in properly, interfacing with their suits' inertial packs, and she felt more secure.

"Some ride this is going to be," Borno said.

"Yes, and then what?" Jul snapped.

"We'll deal with that when it comes," Hex said. "Have your suit weapons ready at all times."

"I think we'd better get on with it, pilot," Hella murmured.

Hex, through her visor's systems, glanced around. She was a hundred meters above the ground, and the Ghost city was laid out beneath her, a chaotic tangle of silver cables. She could still see the bloody smears that were all that was left of the ur-Ghosts they had skinned. And silvery sparks were converging.

Hex called, "Everybody locked in? Three, two, one—" She raised her arm again, and the palette shot skywards.

From space the extent of the ur-Ghosts' betrayal of their cousins was clear. Their chrome-dipped cities clustered over every scrap of land, with only the ghostly blue-white of the ice cap left untouched. No wonder this terrible fratricidal episode was expunged from the Ghosts' racial memory.

"Pilot," Hella whispered. "The habitat. Theta ninety, phi twenty—"

Hex looked ahead. Riding high above the icy night-side clouds a structure was rising. At first glance it looked like typical Ghost architecture, a mesh of silver thread. But Hex made out a darker knot at the center of the tangle.

So this was the bastion of the Black Ghost. It was no more than a kilometer away.

"End game," Borno said softly.

"Let's move in." Hex raised her arms, and the platform slid forward.

Suddenly palette-ships came rushing out of the tangle like a flock of startled birds.

Jul cried out, "Lethe!"

Hella said tightly, "They're going around us, pilot. Hold your line. Hold your line!"

Hex ground her teeth, and kept her hands steady as a rock. The fleet swarmed around her and banked as one, swooping down over the limb of the planet.

"You've got to admire their coordination," Hella said. "I've never seen Ghost ships move like that."

"That's the influence of the Black Ghost," said Borno.

"They're heading for the dayside," Jul murmured. "Swimmer and his people are going to get another pasting."

Hex said firmly, "Then let's see if we can put a stop to it."

They covered the remaining distance quickly.

The palette slid into the habitat, among threads and ducts; it was like flying into the branches of a silvered tree. Though individual ur-Ghosts slid around the inner structure, nothing opposed them.

Soon the clutter of threads cleared away, and the big central bastion was revealed. It was a sphere, black as night, kilometers across. In the jungle-like tangle of Ghost architecture, it didn't fit; it was alien within the alien.

"That wall is a perfect absorber of radiation," Jul called. "A black body."

"You see what this is," Borno brayed. "The Black Ghost built its central bastion in its own image. What arrogance!"

Hella murmured, "Haven't human rulers always done this?"

Hex said, "I'm hoping we can use its arrogance against it." She inched forward cautiously. Still they weren't challenged. The hull of the bastion was a smoothly curving blankness before her, reflecting not a photon of starlight. She sensed the Black Ghost in there somewhere, watching, drawing out the moment as she was. "Come on, you bastard," she murmured. "You know I'm out here. Let's see what you got."

The black wall quivered. Then it split along a seam, revealing a pale silvery glow. When the wound stopped dilating, it was a vertical slit hundreds of meters long, more than wide enough for the palette to pass.

"I can't see inside," Jul said.

"Our suit sensors don't work," Hella said, sounding alarmed.

"But the invitation's clear," Hex said tightly. She brushed her hands forward.

The walls of the bastion slid past her; the fortress's hull looked no more than paper-thin. Twenty meters inside the hull she brought the palette to a stop. Her visor showed her nothing but empty space, a sphere kilometers wide filled with a cold silver-grey glow.

Then the ur-Ghost hide around her began to crumple and blister, and a harsher light broke through, shining directly on her. She threw up her hands to protect her vision. She heard the others cry out. The hide scorched, crumbled, and fell away.

Cautiously she lowered her arms. Now she could see what the sensors hadn't been allowed to show her. This space wasn't empty at all. It was filled with Silver Ghosts, spheres like droplets of molten metal, and ur-Ghosts of every shape and size, faceted and spiny, ranked around her in a hexagonal array that filled space as far as she could see. They were motionless, positioned with utter accuracy, objects of geometry rather than life. And, scattered through the ranks of silent Ghosts, lanterns pulsed, blue-white: models of the pulsar that was destroying the world, they were marks of adherence to the Ghosts' Destroyer god.

This was nothing like the way humans had seen Ghosts behave before, over centuries of contact and warfare. The command of the Black Ghost, here at the heart of its empire, was total.

Hex's palette-ship hung like a bit of flotsam before this symmetrical horde. With their skin covers burned away, her crew sat cross-legged in their little hollows, cowering. "Everybody okay?"

"What do you think?" Jul said.

Borno was staring at the arrayed Ghosts greedily. "Lethe," he said. "There must be thousands of them."

"Actually more than a million." The voice, delivered through their translator boxes, was flat, impersonal, artificial.

Hex looked into the geometric center of the sphere, for she knew that was where *it* would be; its sense of its own importance would admit nothing less. And there she saw a black fist, a sphere twice, three times the size of those clustered around it. The ranks of Ghosts parted in shining curtains, and that central dark mass slid forward.

Hex heard the harsh breathing of her crew. "Take it easy," she murmured. "We've come this far—"

"I've *let* you come this far," said the Black Ghost. "Did you think your absurd concealment would fool me?"

"Actually no," Hex said. "I thought you would be so arrogant you would let us in anyhow. You're very predictable."

The Black Ghost rolled before them, its coating black as the inside of her own skull. Hex was guessing at the psychology of an alien being exceptional even among its own kind. Well, the Black Ghost showed some characteristics of humanity, and no human, especially the arrogant sort, liked to be mocked.

Almost experimentally, Hex raised her arm and held it out straight, pointing at the Black Ghost. An energy weapon was built into the sleeve of her suit. She fired; her suit reported the energy drain. But there was no sign of the discharge.

Her crew quickly tried the other weapons at their disposal. Nothing worked. With an angry cry, Borno even hurled his knife. It crumbled to dust before it left his hand.

The Black Ghost said, "And you call me predictable?"

"We're here to kill you, you bag of shit," Borno said.

"To kill me, yes. Humans walk in death. Each Ghost is a complete ecological unit. When we went into space we brought the life of our world with us. Whereas you killed off your ecology, killed the world that produced you, all of it except yourselves, and the pests and parasites too wily to be eradicated. You even call us *Ghosts*, named after imaginary creatures you associate with death. How appropriate."

"And what about you?" Hella asked. "How many humans have you slaughtered—how many of your own kind have you put to the flame?"

"Ah, but I am different. I relish death, as you do. Can you see my black hull? These others are silvered to save their heat. I relish the obscenity of waste—as you do. I am like you. Or I am like our Destroyer god of old."

"Your own kind despise you," Borno said.

"That may be. That is why I brought back these others—" Hex's translator box interpolated, *the ur-Ghosts*. "These, forged in the cold desperation of our race's most difficult age, don't deny what they are. It is strange. Once the ur-Ghosts were called back from space, to help save a dying world. Now I have called them again, back from the deeper darkness of the past, to help me save my kind from humans."

"It's crazy," Hella whispered.

"So you have us," Hex said. "What now?"

"You will serve me. Three of you will be given to my ur-Ghosts, my scientists. We will drain you of what you know, and then use you to explore ways of killing humans. Oh, you will be bred first; we are running short of laboratory animals. The fourth will be flayed, kept alive, and sent back where you came from. Perhaps *you*, the commander. A warning, you see; a statement of intent. Don't you think I know human psychology well?"

"Not well enough," Borno said.

Hex snapped, "Gunner—"

"For the Engineers!"

With a roar Borno straightened his legs and hurled himself out of his palette station, straight at the Ghost's bland black hide. In mid-flight his

suit slit open and fell away, leaving him naked save for underwear, his head, hands, and feet bare. His last breath frosted in the vacuum, his mouth gaping. But he held out his hands like claws.

Jul screamed. "What's he doing? He's killing himself!"

Hex, stunned, could only watch.

Borno landed on the Ghost's night-dark hide and grabbed big handfuls, pulling and crumpling. The Black Ghost rolled, trying to shake off its assailant. Around it the other Ghosts bobbed, agitated, but they had no way to help; they couldn't fire on Borno for fear of hitting the Black Ghost itself.

Then Borno took a mouthful of hide, bit down hard, and arched his back. The Ghost's hide ripped, and a clear fluid laced with crimson boiled within the wound. Borno's eyes were bleeding now, his ears too, but he dug into the Black Ghost with his teeth and nails, the only weapons he had left.

"We have to help him," Hella called. She breathed hard; Hex sensed her psyching herself up to follow Borno. "Are you with me?"

"All right," Hex said. "On my mark—"

Before they could move one of the Ghosts broke ranks. A perfect silver sphere, it swept down purposefully on the Black Ghost and its clinging human assailant. A slit opened in its own belly, a weapon nozzle protruded—and a projectile fired neatly into the black hide through the wound Borno had opened. The Black Ghost emitted no sound, but it quivered and thrashed. Borno clung on, but he was limp now.

And every other Ghost among the million arrayed around them froze in place.

As the Black Ghost suffered its death throes, the assassin came drifting to Borno's vacated station.

Hex asked, "Integumentary?"

Hella said, "How do you keep *doing* this?"

"I suggest you get us out of here, Pilot," said the Ghost. "Without leadership the troops are paralyzed, but they will react soon. If you want to live—"

"Not without Borno," Jul said.

"He's already dead," said the Ghost.

"No!"

The Integumentary spun in its station and spat another bullet, this time neatly lancing through Borno's limp body. "Now can we go?"

Hex grimly drew her hands toward her lap. The palette shot backward out of the bastion, and into open space.

VII

The palette hovered at the rim of the system. The misty, dying star of the Ghosts was still visible, as was its intensely blue companion.

"They won't find you here," the Integumentary said, still nestling in Borno's vacated pod.

Commodore Teel's disembodied head appeared before Hex. "So the Black Ghost is dead. Good. Now we will see how the war turns out. You did well, Hex."

"Borno did well."

"He will be remembered."

The Integumentary seemed to feel its plan had worked out as it hoped. It had been able to penetrate the Black Ghost's bastion, even smuggle in a weapon so crude it wasn't picked up by the defensive systems. But it could never have penetrated the Black Ghost's hide if not for Borno's attack, which the Black Ghost clearly hadn't anticipated.

Teel said, "So the most powerful Ghost in generations was defeated by human qualities: Borno's raw anger and courage, and the Black Ghost's own arrogance."

The Integumentary murmured, "And what could be more human than savagery and arrogance?"

Hex was still trying to understand what had happened. "Ghost—when your sun died, there was a bloody battle for survival. You've spent a million years denying that about yourselves. But the Black Ghost saw it was precisely that streak of primitive brutality you had to rediscover to fight humanity. It might even have succeeded. But you couldn't bear the image of yourself it showed you, could you?"

The Integumentary said, "The Black Ghost was an anomaly. This is not what we are, what we aspire to be."

Teel looked at Hex. "Pilot, it isn't just their past that the Ghosts want to expunge, but what they have glimpsed of their future—or anyhow that's what the analysts in the Commission for Historical Truth have made of this incident."

It was a question of natural selection. For centuries, Ghosts had been losing battles to humanity. Only those capable of dealing with humans—of anticipating human intentions, of *thinking* like a human—survived to breed. "It's a selection pressure," Teel said. "Only those Ghosts who are most like us have been surviving. So maybe it's not surprising that there should emerge a Black Ghost, a Ghost so like a human it organizes its own hierarchical society, fights a war like a human commander. What do you think about that, Ghost?"

The Integumentary rose up out of the palette cradle. "I am relieved our business together is done. The Black Ghost is dead. The exploitation of interdimensional energy will be closed down, the research destroyed. It is a weapon too dangerous to be used."

"Until we rediscover it," Hella murmured.

Teel wasn't done yet. "You can't stand this, can you, Ghost? You needed humanity to resolve this problem among yourselves. And to do it, *you had to think like a human yourself*, didn't you?"

The Integumentary said, "It is true that we would rather go to extinction than to become like you. Is that something you take pride in? Pilot, the ancient star system will be restored to its proper time. You have only seconds before the energy pulse that will follow. I tell you this as a courtesy. We will not speak again." And it disappeared, as if folding out of existence.

Jul said, "Seconds?"

Hella said, "How fast can this thing go, Pilot?"

"Let's find out," Hex said, and she flexed her gloved hands. "Everybody locked in? Three, two, one—" O

Ghosts by Gaslight

Ash-Tree Press, the brainchild of Barbara and Christopher Roden, issued the first of its elegant, essential books in 1994. Having survived—nay, flourished—for well over ten years, the Rodens and their firm stand as seminal, senior players in the small press field. So it's instructive to examine what they do, for secrets to their success.

First off, the Rodens staked out a well-defined, under-served niche for themselves: to publish "classic supernatural fiction, old and new." Long unavailable works by such masters as M.R. James, H.R. Wakefield, and Marjorie Bowen were ushered back into print, delighting collectors and fans. And the door was left open for simpatico work from living authors.

Second, the Rodens focused on subject matter they were in love with. They did not choose to publish whatever kind of book was hot at the moment. Scholars and critics of the ghost story and allied supernatural genres, they operate from passionate involvement with their chosen literature.

Third, the Rodens decided to create ultra-handsome physical artifacts. Their limited-edition books, while on the pricey side of average, offer heft, durability, keen graphic design, and meticulous proofing for the money, more so than your run-of-the-mill bestseller printed on Kleenex and held together with bubblegum. Ash-Tree Press books in-

variably appreciate in value from the moment they are launched.

But of course, what ultimately counts is the contents. And the Rodens here have shown a keen instinct and good taste as well.

Let one of their latest offerings serve as an example.

The Captain of the 'Pole Star' (hardcover, \$46.00, 460 pages, ISBN 1-55310-068-9) collects all the "weird and imaginative" fiction of Arthur Conan Doyle, assembling in one essential volume a body of work that stands both the test of time and comparison with the canon featuring Doyle's famous detective.

The volume starts with an appreciation by Michael Dirda, well-known critic for the *Washington Post*. Dirda hints with his typical precision and delight at the joys awaiting us. Then an introduction by the Rodens puts the stories in context. From 1877 to 1922, at the same time he was writing all his Holmes stories and much of his other naturalistic fiction, Doyle kept up a steady production of eerie tales, ranging from near-SF through quintessential ghost tales to *contes cruel*. Plainly, this mode was central to his artistic vision, even though the average reader tends not to see Doyle in this manner. Thus this book does literature a service by casting a brighter light on this author's full career.

The stories are arranged in their order of publication, and one would suppose them to reflect a kind of bell-curve graph, with low-quality on either end and the good stuff in

the middle. And it's true that the first story, "The Haunted Grange of Goresthorpe," written when Doyle was just eighteen but left unpublished until 2000, is slight. But even here, Doyle's sure hand with dialogue, characterization, plot, and creepiness is evident. And it doesn't take long before Doyle is exhibiting his full powers, and there's no real diminution right up through his sixties. These stories all read as easily as contemporary fiction, with no truly archaic language or conceits to impede one's enjoyment—or shivers.

Doyle shows himself adept at a variety of scary modes. In stories such as "The New Catacomb," where a jealous man lures his rival into an underground labyrinth, Doyle pulls off Poe-like effects quite well. In "The Case of Lady Sannox," where a man is tricked into mutilating his beloved, we get a taste of the French *conte cruel*. Likewise in "The Lord of Chateaux Noir," where a vengeful father enacts a ritualistic humiliation with a surprise twist at the end. Finally, in "A Pastoral Horror," Doyle comes close to a prototype of the modern serial-killer novel.

Of course, Doyle also provides plenty of actual uncanny incidents. Women with supernatural, lamia-style powers were a favorite theme, cropping up in "John Barrington Cowles" and "The Parasite." Ghosts naturally are everywhere, whether in the polar wastes (the title story); a target range ("The Winning Shot"); or in Roman ruins ("Through the Veil").

Using such then-cutting-edge scientific trends as mesmerism and manned flight, Doyle also generated stories that tread close to science fiction. In "The Great Keinplatz Experiment," minds change bodies between a professor and his student.

In "The Horror of the Heights," a new airplane ventures high enough to encounter aerial forms of life. The era's latest findings of Egyptology lead to spooky doings in both "The Ring of Thoth" and "Lot No. 249." And in "The Los Amigos Fiasco," death by electrocution produces a novel result.

This last mentioned story also brings up Doyle's flair for comedy. Several stories, including "Selecting a Ghost," in which spirits audition for the role of haunting a house, mix laughter with the terror. And certainly the black humor of many of the stories is undeniable.

For someone who in later years famously became infatuated with spiritualism, Doyle maintains an even-handed approach to this fad, often making fun of table-rapping and its ilk. In "Playing with Fire," a séance produces an ectoplasmic unicorn that gives the naïve spiritualists a sound thrashing.

The Rodens also include a Holmes story here: "The Speckled Band." This inclusion points up how integral Doyle's tone was even to the canon of the master of Baker Street. Watson's opening sums up the kinship: "Sherlock Holmes . . . refused to associate himself with any investigation which did not tend toward the unusual, and even the fantastic." Doyle was at heart a fabulist, even when supposedly most rational and mimetic.

One fascinating aspect of these stories is the glimpse they give of Doyle's era, when the British Empire was at its height. Except for one or three tales, all these stories were based contemporarily with their writing, and set on many different continents. (Doyle eschewed the fusty Gothic for the modern, as if to say that oddities still flourished

amidst all progress.) This comes out most explicitly in the opener to "De Profundis," which is a paean to the oceans that are "the ligaments which bind together the great, broad-cast British Empire."

Stylewise, Doyle was a master of a clean prose that sucked the reader in cinematically. But he was also not averse to poetry and metaphor. The start of "The Parasite," with its evocation of the pleasures of spring, is both a lyrical treat and a symbolically useful foreshadowing of the problems that will arise when the romantic urges of man and woman go astray.

To read this volume is to be plunged back into what *Interzone* founder David Pringle calls "The Age of the Great Storytellers." We are lucky that the Rodens have the patience and insight to produce such volumes for our delight.

You can contact Ash-Tree Press online at www.ash-tree.bc.ca/ashtreecurrent.html, or at POB 1360, Ashcroft, British Columbia, V0K1A0, Canada.

Keeping Up Appearances

From a small press that has endured for ten years, we pass to one just beginning a journey that, with luck and skill and support from readers, could last easily that long or longer.

The Rose Press <www.therosepress.co.uk>, founded by Philip Rose, has just issued its first publication: Brian Aldiss's newest novel, titled *Jocasta* (trade paperback, \$44.95, 311 pages, ISBN 0-9548277-0-8). As is so typical of Aldiss's oeuvre, the book is not quite like anything he's ever done before, and also a triumph.

But before discussing the text it-

self, a slight detour into the physical makeup of the book. Limited to 750 signed copies, the oversized paperback offers marbled covers of extra-heavy stock. Full-color endpapers (a perfectly apt Gustave Moreau painting) bracket the rich creamy pages. The interior design reflects a sure hand, offering such nice touches as a few black-and-white illustrations and decorative motifs at the ends of chapters. In short, an eminently collectible production.

What Aldiss has set out to do is to retell one of the core myths of our civilization—that of Oedipus and his fate—from the point of view of Jocasta, Oedipus's mother and wife. Of course, such a strategy—looking at famous events from a relatively neglected angle—is not unique with Aldiss. Perhaps Tom Stoppard's *Rosencrantz and Guildenstern Are Dead* (1966) is the most famous instance of this tactic.

But Aldiss has much more in mind than a mere re-staging of the myth from a female perspective. He intends to use his tale to examine issues of free will, the pursuit of happiness, and justice. As well, he hopes to illustrate a theme first made famous in Julian Jaynes' 1976 book *The Origin of Consciousness in the Breakdown of the Bicameral Mind*: namely, that our ancestors were literally unable to think in the same manner we think today, their minds hardwired to hear divine voices. Moreover, he is going to make his tale a full-fledged fantasy, complete with a querulous living Sphinx, ghosts, gods, and griffins. Finally, the tragedy will be tempered with large dollops of comedy.

Whew! That's one major agenda. But at this point in his awesome career, Aldiss is fully equal to the task. After all, he has recently passed the

fiftieth anniversary of his debut (like his coevals Robert Silverberg and Harry Harrison), and this is his twenty-fifth novel, among numerous other works.

Chapter one introduces us swiftly to almost the entire cast, and the rest soon follow. Besides Jocasta and Oedipus, there are the four children of their union (the most important being Antigone); Jocasta's self-righteous brother Creon and his wife Eurydice; Tiresias, the blind, prophetic hermaphrodite; and, the real scene-stealer, a woman of Aldiss's creation, Semele, Jocasta's petulant grandmother. A host of less-important but fully realized folk also populate these pages.

These citizens of Thebes are all suffering as the city labors under its mysterious curse. Jocasta, as protagonist, is the only one to know the reason why the city has been stricken. In Aldiss's interpretation of events, she realized from the moment she saw Oedipus that he was her abandoned son, now returned to fulfill his fate. Complicit in his crime from the start, she is almost as much to blame as Oedipus.

But Jocasta is no deviant or fainting martyr in Aldiss's hands. She emerges as a smart, strong-willed, intellectually curious woman whose fatal flaw was to love not wisely, but too well. And her daughter Antigone, who will ultimately accompany her father into his exile, shares these traits.

The immemorial tale unfolds basically as in Sophocles's play, but with many nuances and touches unique to this version. For instance, Sophocles himself, thanks to a spacetime distortion, appears as a character. But the main appeal of Aldiss's version is to open up the domestic life among the royal family. We get to see

exactly how the parents and children (and dotty Grandma Semele) interrelate. And the flavor of their relationships is, believe it or not, rather like a classic BBC sitcom such as *Keeping Up Appearances*, or a Monty Python skit blended with Mike Leigh's film *Secrets and Lies* (1996).

Contemplate some of Semele's senile maunderings, and tell me that Aldiss is not deliberately and hilariously taking the piss out of the solemnity with which such subject matter is usually presented:

"We mainly ate horse meat. Mares' meat, of course. You could get womb trouble if you ate stallion meat by mistake. Your womb turned to wood. There was a woman in the next village whose womb turned to wood, and she had eaten stallion meat by mistake. She told me so. I forget her name."

So, in ways both comic and tragic, Jocasta experiences the last defining days of her life, asking big philosophical questions that Aldiss does not so much answer—who could?—as he affirms the worth of their asking. The whole production shines with the genuine dusty light of Greece's Golden Age, which is always really Right Now.

The story ends with Jocasta's suicide, as it must. But then Aldiss, as lagniappe, in one of his typical meta-fictional creative flourishes, offers us a small story titled "Antigone," in which a twentieth-century Soviet dissident has an out-of-body experience at the point of death, bringing him back astrally to meet Antigone many years after the tragedy. And here Aldiss confers a happy ending on at least one member of that cursed household.

In meditating on what makes a genius, Jocasta thinks, "Men of genius are born to express their knowl-

edge of reality. Often that knowledge is highly idiosyncratic. But reality itself is highly idiosyncratic. The gods have not made the path smooth."

I will leave to the ages whether Aldiss qualifies as a genius or not. But as an expresser of many highly entertaining, idiosyncratic realities, he knows few competitors.

Spirited Farther Away

"The world is flat" is the short-hand phrase which political commentator Thomas Friedman uses to indicate how modern mass communications and the global spread of capitalism and democracy have conspired to level barriers between the marketplaces of nations. Nowadays, Beijing and Bombay are as close economically to New York as is Boston.

Something similar, it seems to me, is happening in literature. Certain global best-sellers, in greater and greater numbers, can leap across borders to ignite the imaginations of readers equally. (Paradoxically, this does not excuse a paucity of translations into English of novels from other countries, nor deny the export hegemony of popular literature in English.)

We can see this change especially in one of our beloved genres, namely that of fantasy. A writer like Paulo Coelho appeals to English-speakers and German-speakers and others as much as he does to his fellow Brazilians. Tolkien's daydreams now encircle the planet. Umberto Eco hypnotizes both Europe and America. Possibly, fantasy exports even more easily than other genres, since the best fantasy has its roots in ancient concerns and tropes common to the whole species, whereas naturalistic fiction is more culture-biased.

In any case, a kind of Universal Fantasy that appeals to postmodern audiences is shaping itself around us. Disregarding commodified trilogies for the moment, we can identify the exponents of this style as people such as Tim Powers, Jonathan Carroll, Paul LaFarge, Nicholas Christopher, Gene Wolfe, Paulo Coelho, Graham Joyce, Michel Houellebecq, and Victor Pelevin. Perhaps these are the children of Borges in a way, fabulists who blend magical realism, surrealism, and even SF into rich new modes.

Surely Japan is a notable contributor to this mighty river of fantasy. Hayao Miyazaki's films, notably *Spirited Away* (2001), while often using intensely Asian subject mat-

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ter, appeal to fantasy lovers everywhere, and stand as a good example of this pan-cultural phenomenon.

Another fine example from Japan of this new movement is Haruki Murakami.

Murakami's books, in English translations, have become touchstones for Universal Fantasy. Rich with local color, they nonetheless embody themes and characters that readers everywhere can identify with: loss, grief, confusion, redemption, transcendence.

His latest novel, *Kafka on the Shore* (Knopf, hardcover, \$25.95, 436 pages, ISBN 1-4000-4366-2), is no exception.

Kafka on the Shore features perhaps a smaller cast than other novels by Murakami, and fewer venues. But it remains as multivalent and satisfyingly mysterious as his other works such as *The Wind-Up Bird Chronicle* (1997) and *A Wild Sheep Chase* (1989).

The book is divided, at first, into three alternating parts. One thread, though, soon falls away, leaving us shuttling between two points of view.

Our main focal character, who opens the book in his first-person voice, is Kafka Tamura, a fifteen-year-old runaway. Kafka is fleeing from his unspecified evil father, in search of his lost mother and older sister. He hops a bus in Tokyo to a random destination, the city of Takamatsu. On the bus he encounters a young woman named Sakura, with whom he instantly establishes a bond. Arriving in Takamatsu, Kafka and Sakura part. Shortly thereafter, the literate Kafka finds his way to the Komura Library, a privately funded memorial to one man's love of books. The library is staffed by two people: the androgynous Oshima and the enigmatic Miss Saeki, a beautiful

middle-aged woman. Kafka immediately feels at home here, and in no time the library literally becomes his residence.

The second thread concerns an incident from Japan's wartime past, when a group of schoolchildren on a rural holiday experienced an inexplicable fainting sickness that seemed to leave no ill effects. This incident, which calls to mind John Wyndham's *The Midwich Cuckoos* (1957; and deliberately so, I'm sure, for Murakami is well-read in SF), is presented in detail, then dropped, its connections to the rest of the narrative not apparent at first.

The last thread features an elderly Tokyo man named Nakata. Simple-minded, Nakata is a kind of holy fool. Able to understand the language of cats, Nakata has made a living acting as a "cat-finder" for distraught pet owners. But his latest assignment involves him with a gruesome serial killer of cats. Forced against his will to slay the evil fellow, Nakata is thrust on a quest that will eventually dovetail with Kafka's own mission. Along the way, Nakata picks up a kind of Sancho Panza figure named Hoshino.

Chapter by chapter, Murakami weaves the parallel narratives into a seamless tapestry of synchronicity and predestination, bringing in the second, almost forgotten leitmotif as well. Ironically, although Kafka has an immense impact on Nakata's life, and vice versa, Kafka and Nakata never meet in the flesh or are even aware of each other's significance. One finishes the book with the sense that life is a playground for forces larger than us, which direct human lives from a higher plane, leaving our interdependencies concealed.

In the realm of characterization, Murakami achieves wonders. Kafka

emerges as an authentic teenager, indecisive one moment, full of confidence the next. His wants and dreams drive him impulsively, right over the borderland of life and death. He exits these pages a changed man, having passed into adulthood before our eyes.

The Sturgeonesque emptiness of Nakata's mind (think *More Than Human* [1953]) is likewise fully limned. Nakata is both awesome in his supernatural abilities and single-mindedness and pitiful in his foreclosed possibilities. In a similar manner, the wounded figures of Miss Saeki and Oshima are compounded of bravery and weakness, denial and self-awareness.

But it's in the comic personage of Hoshino that Murakami strikes gold. A rough-edged truck driver who happens to give the hitch-hiking Nakata a lift, Hoshino's story proves to be the best illustration of how magic can touch a life and ennoble it.

Murakami's brand of fantasy is compounded both of undeniable eruptions of the uncanny—talking cats, the ghosts of two soldiers, a demiurge who takes the convenient shape of KFC's Colonel Sanders!—and more subtle congeries of coincidences and patternings. For instance, Miss Saeki in her youth was the composer of a song titled "Kafka on the Shore," which also happens to be the title of a cryptic painting that hangs in the library. Through such mosaics of meaningful juxtapositions and superimpositions, Murakami succeeds in rendering the everyday world a realm of beauty, terror, awe, and grace.

Once in a great while, Murakami can lay on the allegory a little too thick. Was it really necessary, in the closing pages of the book, to introduce surfing as another metaphor for living boldly? Hadn't we already

had enough systems—classical music and so forth—given to us as templates by then? Still, Murakami's generous fecundity and generally unfailing sense of rightness and sufficiency can't be faulted when he produces novels that serve as modern fairy tales and doorways into the conundrum that is life.

Living Inside the Mystery

When I was starting my own career nearly thirty years ago, the path to publication for an aspiring newcomer was plainly staked out by hundreds of genre writers who had gone before. What you did was, you broke into the magazines, learning your trade and acquiring a name for yourself. Then came book publication, either of a novel, or, if you were very lucky (as I was), with a collection of your short stories.

Of course, I was really the last generation to imprint fully on such a template. With the gradual diminishment of the importance of SF zines in the field (not in my estimation, I hasten to add!), and the upwelling of many lines of SF books from many "younger" publishers (DAW, Tor, et al), as well as the establishment of franchise fiction, which allowed many a newbie to make a start, the old route of apprenticeship via short stories came to a dead end.

Oh, sure, occasionally a Ted Chiang would arise to fulfill the ancient pattern, but the very sparsity of such personages testified to the prevalence of the replacement paradigm: new authors debuted in book form immediately, almost always with a novel.

What was in the past and remains today the most rare kind of debut for

a writer has to be the appearance in book form of a volume of original stories never previously seen.

We encounter such a unicorn of a book today in Holly Phillips's *In the Palace of Repose* (Prime Books, hardcover, \$29.95, 208 pages, ISBN 1-894815-58-0). This volume of nine stories consists of seven virginal ones and only two that have seen print previously.

It comes with an introduction by talented fantasist Sean Stewart and an encomium from noted author Michael Bishop that predispose the reader to receptiveness. But for us old salts who came up through the periodical ranks, a niggling doubt remains: can these stories be any good if no magazine had swooped upon them prior to now?

Well, what if they were simply never marketed? What if the author wanted to present them as a whole? What if there were simply not enough niches for them in the dwindling marketplace, or editorial quirkiness caused them to be slighted?

I can't say what led Holly Phillips to offer her wares in this fashion. But what I can do is dispense with any similar doubts you yourself might be having in connection with this book.

These are some accomplished, splendid, enticing—even masterful—stories. Holly Phillips steps out for her first time on stage, all unknown, and brings down the house with a restrained yet bold performance. We are present at the birth of something major.

Let's step through the stories to get an idea of what we're being gifted with.

The title piece (one of the previously printed stories) concerns a nameless city of somewhat steampunkish nature. It's a place rife with fusty old

bureaucrats in High Edwardian mode. But one of the ministers has a very unusual job. He happens to be in charge of the Palace of Repose, an eldritch structure where a literal deity is confined. This sleeping King seems to have dreamed the land into existence, and continued survival depends on keeping him somnolent. But upon visiting the Palace recently, our protagonist finds a stranger therein, a young woman named Ivy. Will her presence wake the King? Where did she come from? What does she portend for the future of the realm? And how will our hero manage to keep his job in the light of government reorganization?

"The Other Grace" is set in the 1950s, in a small town. (Many glancing references in her stories seem to indicate that Phillips is Canadian, and one could profitably envision this tale as being set in, say, some rural Canadian spot. Although at first I pictured it as taking place in America's South.) A teenager named Grace experiences a weird kind of spontaneous, instant amnesia that robs her of her whole personality. Surrounded by relatives and friends, she is the ultimate stranger. How can she possibly refashion her life from the ground zero of her affliction?

A young adult woman flees from town to town, staying only as long in each place as her pursuers allow. But what exactly is pursuing her? Well, there's the Nerd, a mysterious human antagonist. But there are also the clanking hybrid monsters that she herself raises out of the detritus of civilization. That's the setup for "The New Ecology," the other story with an earlier instantiation.

Sometime in the early twentieth century, an archaeological dig is taking place in Central Asia. The Western scientists intend to open an an-

cient barrow. The natives warn them of the consequences of disturbing the corpse within. Caught between rationalism and superstition is the young female interpreter, a native girl gone Western. Which worldview is right? One, neither, or both? Such is the quandary caused by "A Woman's Bones."

In "Pen & Ink," a teenaged girl, daughter of an artist gone missing, finds herself stalked by a being known as "the curator." He wants to find the lost last painting of the girl's father, which contains a certain secret. So does she. But how to discover it without placing it into the greedy hands of the curator is the question.

The month is October in "One of the Hungry Ones," and a street kid named Sadie is adopted by a trio of juveniles who enjoy the patronage of the mysterious Mr. Nero. Sadie is soon swept up in Mr. Nero's queer celebrations, which prove much easier to enter than to leave.

The town of End Harbor has always been a spooky place of strange potency. When one of its native sons returns in "By the Light of Tomorrow's Sun," old scandals are reawakened, and old debts must be paid.

"Summer Ice" is set in the near future, when the Western world is on the skids. A painter named Manon finds herself doubting her art in the face of the exigencies of a hardscrabble existence. But she learns to savor her new life, and to see the opportunities for creativity that hide behind gray clouds.

Finally, "Variations on a Theme" jumps back and forth between 1914 and 2003, charting the parallel careers of two young preternaturally talented musicians, who are revealed in the end to be linked in the strangest, yet most obvious way.

What makes these stories so exceptional? Several things.

First is Phillips's easy familiarity with many of the classic tropes of the field, and the voices of the geniuses who have worked such veins in the past, a familiarity that allows her to put refreshing spins on her tales while still hewing to a proud lineage.

The title story, with its dreaming god, invokes Dunsany, but the addition of imperial bureaucracy adds a piquantly mundane and comic element to the mix, in the manner of Jeffrey Ford. "The New Ecology" speaks to the Ellisonian notion of strange new gods arising to fill vacant niches, but does so in a hopeful rather than despairing fashion. Echoes of Le Guin's anthropological slant permeates "A Woman's Bones," but the "primitive" culture is not overly privileged. Bradbury, as he must, surfaces in the autumnal atmosphere of "One of the Hungry Ones," but it's an unromantic Bradbury. Tinges of a modified Lovecraft permeates "In the Light of Tomorrow's Sun," while the John Crowley of *Beasts* (1976) seems to inform "Summer Ice."

In short, Phillips's models for her fictions, her influences and guides, are among the very best. And in the subtlety of her narratives, the depth of her characterizations, and the determined ambiguity and open-endedness of her resolutions, she does honor to them all.

Phillips also has a knack for beginning her stories sharply, with awesome hooks, even though the reader is often delightfully left—in the words of Tiptree—"a mile underground in the dark." She continues to hold the reader with silky, limpid prose that neither strains too heavily after fine writing, nor disdains a

certain poetry. She knows instinctively just how much description is enough to conjure up vivid mental images without being over-deterministic. Consider the passage in "The New Ecology" where our heroine summons up "the Largest One" from its slumber. Just a sentence or three, and you have a perfect conception of this monster.

Lastly, Phillips deals with intriguing themes. The search for identity is perhaps her signature. Time and again, her protagonists must learn who they really are, in the light of who society says they *must* be. "The Other Grace" presents this struggle most overtly, but it's present in nearly every piece herein.

Whether Phillips continues in the short-story mode or moves on to novels, she's a writer to watch.

And really, who cares in what venues she first appears? Just let her continue to write.

Visit Prime Books at www.primebooks.net to see the work of Phillips and other fine writers.

What the Lupoffs Wrought

The history of science fiction is inextricably intertwined with the history of SF fandom. To completely understand one, you must have knowledge of the other. But while SF proper has a wealth of documentation and critical apparatus surrounding it, SF fandom has comparatively little. And what historical documentation does exist has been of spotty quality. Aside from some works by Sam Moskowitz and Harry Warner, what's generally available today to the interested reader who wants to know what fandom was like during various eras? Not much.

One of the pivotal documents that

does exist is Theodore Cogswell's *PITFCS* (1992), a vast reprinting of the pivotal zine, *Proceedings of the Institute for Twenty-First Century Studies*. In these pages, pros and fans of the late 1950s and early 1960s debated every topic under the sun, and the inner workings of science fiction were exposed for all to see.

Now comes another, smaller-scale such volume, and it proves equally fascinating.

The Best of Xero (Tachyon Publications, hardcover, \$29.95, 272 pages, ISBN 1-892391-11-2) is a sampler of the zine created by Richard and Pat Lupoff circa 1960-62. Lasting for a mere ten issues, ultimately capturing a Hugo Award, *Xero* was a hotbed of creativity and controversy, and the contents of this volume convey the excitement of this period in full force. Famous names such as Donald Westlake, James Blish, Avram Davidson, and Lin Carter consort with those of fannish personalities both well-recalled and well-nigh forgotten. Letters to the editor are reproduced along with many articles and illos, capturing some of the lively give-and-take that marked the pages. Context-setting introductions by the Lupoffs, as well as by ex-fan and now famous film critic Roger Ebert, make a strong case for the historical importance of this zine.

Today, fandom has migrated almost entirely to the internet. But the heady fumes of correction fluid still linger in the nostrils of every true fan, even those too young ever to have seen a mimeo machine. And the spirit that animated the Lupoffs and their peers remains alive today. A new generation should welcome this book, as well as those who were there at the time.

Learn details about ordering from www.tachyonpublications.com. ○

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Hugos (a)	Jul	14	Organs R Us (ss)	Mar	86
————Mastery (a)	Dec	13	Nestvold, Ruth—		
————SETI and Such (a)	Sep	12	Rainmakers (ss)	Jun	86
Kilby, Damian—			Niven, Larry—		
Earthtime (ss)	Dec	82	Rhinemaids (ss)	Jan	52
Kosmatka, Ted—			Niven, Larry—		
The God Engine (ss)	Oct/Nov	78	(with Brenda Cooper)—		
Landis, Geoffrey A.—			Kath and Quicksilver (nt)	Aug	118
Betting on Eureka (ss)	Oct/Nov	165	Olsen, John Phillip—		
Lake, Jay—			The Company Man (ss)	Sep	72
Dark Flowers,			Palwick, Susan—		
Inverse Moon (nt)	Oct/Nov	136	The Fate of Mice (ss)	Jan	18
Martyrs' Carnival (ss)	Jun	50	Phillips, Holly—		
Levine, David D.—			Sister Dark (p)	Jun	101
Tk'tk'tk (ss)	Mar	38	Sister Light (p)	Jun	49
Lindow, Sandra—			Pilkington, Ace G.—		
An Alternate Universe Alphabet (p)	Aug	89	The Tinkers of Ireland (p)	Apr/May	131
The Physicist's Warning (p)	Jul	27	Pohl, Frederik—		
Ling, Samantha—			Generations (nt)	Sep	18
Waking Chang-Er (ss)	Jul	82	Pratt, Tim—		
Littleton, Therese—			Bottom Feeding (ss)	Aug	76
Invasion of the Vinyl			Destination (p)	Mar	36
Space Monkeys (a)	Dec	18	Purdum, Tom—		
The Robots We Want (a)	Apr/May	16	Bank Run (na)	Oct/Nov	186
Lunde, David—			Reed, Robert—		
Superman Inoxydable (p)	Apr/May	68	Dallas: An Essay (nt)	Apr/May	142
Tycho (p)	Jun	84	Finished (ss)	Sep	40
Martin, George R.R.			Resnick, Mike—		
(with Daniel Abraham and			Down Memory Lane (ss)	Apr/May	110
Gardner Dozois)—			Richerson, Carrie—		
Shadow Twin (na)	Apr/May	178	A Birth (ss)	Aug	109
Martinez, Steve—			Rosenblum, Mary—		
Out of the Box (nt)	Oct/Nov	62	Green Shift (nt)	Mar	108

Rucker, Rudy— Adventures in Gnarly Computation (a)	Oct/Nov	12			Come Out to Play (nt)	Jul	112
Rusch, Kristine Kathryn— Diving into the Wreck (na)	Dec	92			Taylor, John Alfred— The Hand Puppet (p)	Oct/Nov	77
Killing Time (ss)	Jul	54			Tilton, Lois— Pericles the Tyrant (nt)	Oct/Nov	88
Sanders, William— Amba (nt)	Dec	32			Turtledove, Harry— He Woke in Darkness (ss)	Aug	16
Angel Kills (nt)	Feb	40			Turzillo, Mary A.— Epithalamion (p)	Sep	53
Selke, Lori— The Dodo Factory (nt)	Mar	60			Uitley, Steven— Daredevil (p)	Jul	91
Shawl, Nisi— Cruel Sistah (ss)	Oct/Nov	178			Pterygotus (p)	Jun	9
Silverberg, Robert— Fantasies About Fiction (ed)	Apr/May	8			The Wave-Function Collapse (ss)	Mar	52
Gardner Moves On (ed)	Jan	6			van Eekhout, Greg (with Michael J. Jasper)— California King (ss)	Apr/May	118
Grand Masters, the Sequel (ed)	Feb	8			Van Pelt, James— The Ice-Cream Man (ss)	Jun	38
The Greatness of Cornelius Drible (ed)	Aug	8			Vick, Edd— The Compass (ss)	Jul	104
Lovecraft as Science Fiction (ed)	Dec	9			Parachute Kid (ss)	Feb	68
Mr. Orwell, Meet Mr. Dick and Herr Kafka (ed)	Jun	4			Watkins, William John— Fallen Angels' Song (p)	Sep	71
A Pair of Ragged Jaws (ed)	Mar	6			Song of the Harpy's Lover (p)	Oct/Nov	61
Robert Burton, Anatomist of Melancholy (ed)	Sep	6			The Werewolf Escapes His Wife (p)	Oct/Nov	135
Serials (ed)	Oct/Nov	8			The Werewolf's Absolution (p)	Oct/Nov	87
Two Worldcons, Worlds Apart (ed)	Jul	8			Watson, Ian— Lover of Statues (ss)	Apr/May	164
Skillingstead, Jack— Bean There (ss)	Apr/May	132			(with Mike Allen)— TimeFlood (p)	Feb	66
Overlay (ss)	Oct/Nov	104			Wells, Catherine— Point of Origin (nt)	Aug	60
Sparhawk, Bud— Bright Red Star (ss)	Mar	98			What, Leslie— Dead Men on Vacation (ss)	Feb	96
Spinrad, Norman— On Books: No Surrender? (r)	Apr/May	225			Williams, Liz— Iklyroh (ss)	Dec	56
—: The New Weird (r)	Oct/Nov	226			La Gran Muerte (ss)	Apr/May	70
Stewart, W. Gregory— Another View of Breakfast (p)	Apr/May	177			A Shadow Over the Land (ss)	Aug	48
Pray for the Tiny Monsters (p)	Oct/Nov	112			Williams, Sheila— Editorial (ed)	Jan	4
Somewhere In the Moebius' House (p)	Feb	77			—	Feb	4
What I Learned Playing Marathon Solitaire on My PC (p)	Sep	11			—	Apr/May	4
Strauss, Erwin S.— Conventional Calendar (a)	Jan	142			2005 Dell Magazines Award (ed)	Aug	4
—	Feb	142			2005 Readers' Awards (ed)	Jul	4
—	Mar	142			Editor's Note (ed)	Mar	4
—	Apr/May	238			Writing Workshops (ed)	Dec	4
—	Jun	142			Williams, Walter Jon— Science Fiction Village (a)	Jul	18
—	Jul	142			Solidarity (na)	Apr/May	24
—	Aug	142			Willis, Connie— Inside Job (na)	Jan	80
—	Sep	142			Wolfe, Gene— The Card (ss)	Mar	32
—	Oct/Nov	238					
—	Dec	142					
Swanwick, Michael— Girls and Boys,							

TWENTIETH ANNUAL READERS' AWARD

It hardly seems possible that we could be up to the January issue already, but that's what the calendar says—and that means that once again it's time for our Readers' Award poll, which is now in its (can this possibly be true? Seems like only yesterday that we started it!) twentieth year.

Please vote. Most of you know the drill by now. For those of you who are new to this, we should explain a few things.

We consider this to be our yearly chance to hear from you, the readers of the magazine. That's the whole point behind this porticular award. What were your favorite stories from *Asimov's Science Fiction* last year? This is your chance to let us know what novella, novelette, short story, poem, and cover artist, you liked best in the year 2005. Just take a moment to look over the Index of the stories published in last year's issues of *Asimov's* (pp.137-139) to refresh your memory, and then list below, in the order of your preference, your three favorites in each category.

Some cautions: Only material from 2005-dated issues of *Asimov's* is eligible (no other years, no other magazines, even our sister magazine *Analog*). **Each reader gets one vote, and only one vote.** If you use a photocopy of the ballot, please be sure to include your name and address; your ballot won't be counted otherwise.

Works must also be categorized on the ballot as they appear in the **Index**. No matter what category you think a porticular story ought to appear in, we consider the Index to be the ultimate authority in this regard, so be sure to check your ballots against the Index if there is any question about which category is the appropriate one for any porticular story. In the past, voters have been careless about this, and have listed stories under the wrong categories, and, as a result, ended up wasting their votes. All ballots must be postmarked no later than **February 1, 2006**, and should be addressed to: **Readers' Award, *Asimov's Science Fiction*, Dell Magazines, 475 Park Avenue South, 11th Fl., New York, NY. 10016.** You can also vote online at asimovs@dellmagazines.com, but you must give us your whole U.S. mailing address. We will also post online ballots at our website, so please check us out at www.asimovs.com.

Remember, you—the readers—will be the only judges for this award. No juries, no ponels of experts. You are in charge here, and what you say goes. In the past, some categories have been hotly contended, with victory or defeat riding on only one or two votes, so every vote counts. Don't let it be your vote for your favorite stories that goes uncounted! So don't put it off—vote today!

BEST NOVELLA:

1. _____
2. _____
3. _____

BEST NOVELETTE:

1. _____
2. _____
3. _____

BEST SHORT STORY:

1. _____
2. _____
3. _____

BEST POEM:

1. _____
2. _____
3. _____

BEST COVER:

1. _____
2. _____
3. _____

NAME: _____

ADDRESS: _____

SIGNATURE: _____

SF CONVENTIONAL CALENDAR

Time for one last round of conventions before the holidays, then look to 2006. Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For an explanation of con(vention)s, a sample of SF folksongs, info on fanzines and clubs, and how to get a later, longer list of cons, send me an SASE (self-addressed, stamped #10 [business] envelope) at 10 Hill #22-L, Newark NJ 07102. The hot line is (973) 242-5999. If a machine answers (with a list of the week's cons), leave a message and I'll call back on my nickel. When writing cons, send an SASE. For free listings, tell me of your con 6 months out. Look for me at cons behind the Filthy Pierre badge, playing a musical keyboard.—Erwin S. Strauss

NOVEMBER 2005

17-20—GenCon. For info, write: 120 Lakeside Av. #100, Seattle WA 98122. Or phone: (206) 957-3976 (10 AM to 10 PM, not collect). (Web) gencongamefair.com. (E-mail) customerservice@gencon.com. Con will be held in: Anaheim CA (if city omitted, same as in address) at the Convention Center. Guests will include: none announced. Big game con branches west.

25-27—LosCon. (818) 760-9234. loscon.org. Hilton, Burbank CA. Big traditional Southern California con of the year.

25-27—Darkover. jaele@radix.net. Holiday Inn, Timonium (Baltimore) MD. Works of M.Z. Bradley, K. Kurtz, et al.

25-27—ChamBanaCon. turkey@chambanacon.org. Hilton, Springfield IL. Low-key relax-a-con.

26-27—Creation. (818) 409-0960. creationent.com. New York City area. Creation's big commercial event of the year.

DECEMBER 2005

2-4—SMOFCOn, Box 5703, Portland OR 97228. (503) 422-6574. Where convention organizers meet to talk shop.

9-11—PhilCon, Box 8303, Philadelphia PA 19101. philcon.org. Marriott. David Weber Their 70th year (from 1936).

21-Jan. 11—NZ Tour, c/o 1919 Chula Vista Dr., Belmont CA 94002. (650) 595-2090. "Lord of the Rings" filming sites.

JANUARY 2006

6-8—GAFilk, 890-F Atlanta #150, Roswell GA 30075. gafilk.org. Holiday Inn Airport N., Atlanta GA. SF folksinging.

13-15—Arisia, Bldg. 600, #322, 1 Kendall Sq., Cambridge MA 02139. arisia.org. Park Plaza, Boston MA. Allen Steele.

27-29—VeriCon, HRSFA, 4 Univ. Hall, Cambridge MA 02138. vericon.org. Harvard University. George R.R. Martin.

FEBRUARY 2006

9-12—CapriCon, Box 60085, Chicago IL 60660. capricon.org. Sheraton, Arlington Hts. (Chicago) IL. Peter Beagle.

10-12—Farpoint, 11708 Troy Ct., Waldorf MD 20601. farpoint.com. Marriott, Hunt Valley (Baltimore) MD. Media SF.

17-19—Boskone, Box 809, Framingham MA 01701. (617) 625-2311. boskone.org. Sheraton, Boston MA. Ken Macleod.

17-19—Life, the Universe, & Everything, 3146 JKHB, Provo UT 84602. ltue.byu.edu. ltue@byu.edu. On BYU campus.

17-19—RadCon, 2527 W. Kennewick Ave. #162, Kennewick WA 99336. shawn_pack@yahoo.com. Red Lion, Pasco WA.

17-19—VisionCon, Box 1415, Springfield MO 65801. (417) 886-7219. www.visioncon.net. Medra, Gaming & SF.

17-19—Gallifrey, Box 3021, N. Hollywood CA 91609. gallifreyone.com. Los Angeles area. Dr. Who. Barrowman.

17-19—KatsuCon, Box 7064, Silver Spring, MD 20907. katsucon.org. Washington DC Omni. Anime.

20-22—ConFusion, Box 8284, Ann Arbor MI 48107. stilyagi.org. Marriott, Troy MI. V. Vinge, H. Alexander, S. Stiles.

MARCH 2006

3-5—CoastCon, Box 1423, Biloxi MS 39533. (228) 435-5217. Mississippi Coast Convention Center.

AUGUST 2006

23-27—LACon IV, Box 8442, Van Nuys CA 91409. info@laconiv.com. Anaheim CA. Connie Willis. The WorldCon. \$150+.

AUGUST 2007

2-5—Archon, Box 8387, St. Louis MD 63132. archonstd.org. Collinsville IL. NASFiC, since WorldCon's in Japan. \$60+.

30-Sep. 3—Nippon 2007, Box 314, Annapolis Jct. MD 20701. nippon2007.org. Yokohama Japan. WorldCon. \$160+.

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NEXT ISSUE

FEBRUARY COVER STORY

Bruce McAllister, one of the most respected writers of the eighties and early nineties, author of the acclaimed *Dream Baby*, returns with his first major SF story in too long a while, our cover story for February, showing us the intricate and surprising relationship that develops between a young boy and a ruthless alien assassin, and how sometimes a similar turn of mind and heart can mark you out as "Kin" much more clearly than blood can do. This is eloquent and thought provoking, a welcome return to top form by a major author, so don't miss it. The evocative cover is by **Dominic Harman**.

ALSO IN FEBRUARY

Jim Grimsley, author of such popular stories as "Into Greenwood" and "The 120 Hours of Sodom," gives us a chilling look at the proposition that maybe death is only the *beginning* of your problems, as he brings us under the gaze of an "Unbending Eye"; **R. Garcia y Robertson**, one of the masters of fast-paced Space Opera adventure, takes us aboard a slaver ship in deep space crewed by ruthless cutthroat pirates, where the only chance of the kidnapped victims may be to trust in a "Teen Angel"; new writer **Kat Meltzer**, makes her *Asimov's* debut by describing the rather peculiar alterations one woman finds herself going through during her "Change of Life"; **Jack Skillingstead** returns to follow a troubled and heartsick detective on the track of a gruesome serial killer with the help of a dead woman, and who finds as well some answers to questions he'd rather not have asked, in the bittersweet: "Are You There"; new writer **Jonathan Greenwood**, making another *Asimov's* debut, relates an experiment in a new sort of interstellar travel that goes horribly wrong, stranding astronauts "Under the Graying Sea"; and British writer **Ian Creasey**, making *his* *Asimov's* debut, offers us a thoughtful portrait of sentient creatures struggling to make contact across all the barriers of xenophobia, paranoia, and cultural difference, as they work together to uproot "The Hastillan Weed."

EXCITING FEATURES

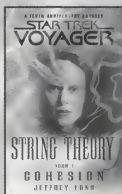
Robert Silverberg's "Reflections" column examines "The Days of Perky Vivienne"; **Peter Heck** brings us "On Books"; **James Patrick Kelly's** "On the Net" talks about things you put "In Your Ear" (no beans allowed!); and, in our Thought Experiment feature, **Brooks Peck** delves into the wonderful worlds of Anime and Manga to assure us that "Cyberpunk is Alive and Well and Living in—Where Else?—Japan"; plus an array of cartoons, poems, and other features. Look for our February 2006 issue on sale at your newsstand on December 27, 2005. Or subscribe today and be sure to miss none of the fantastic stuff we have coming up for you this year (you can also subscribe to *Asimov's* online, in varying formats, including in downloadable form for your PDA, by going to our website, www.asimovs.com).

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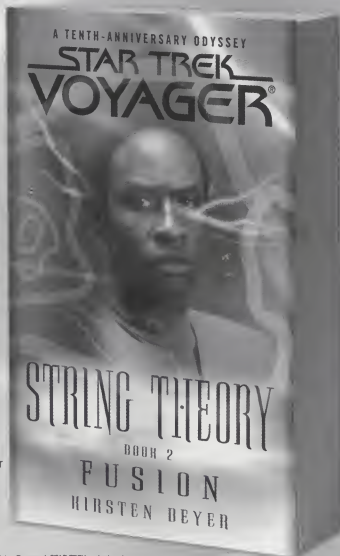
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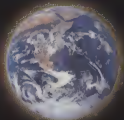


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